

MANUFACTURERS

RECORD

A WEEKLY REVIEW OF THE IRON, STEEL, METAL & HARDWARE TRADES.

AND A MANUFACTURING AND TEXTILE PAPER, DEVOTED TO THE UPBUILDING OF SOUTHERN MANUFACTURES AND THE DEVELOPMENT OF THE MATERIAL RESOURCES OF THE SOUTH.

VOL. 8. No. 8. {
WEEKLY. }

BALTIMORE, OCTOBER 3, 1885.

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JAS. SMITH & CO.

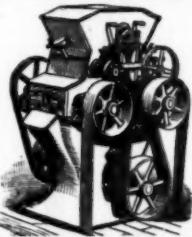
Works, 413 to 421 Race St., Cor. of Crown.

Office & Store, 137 Market St., Philadelphia.

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Manufacturers' Mill Supplies

Of Every Description.



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Flour Mill Machinery.



We make Rolls or Portable Mills for making New Process Corn Meal.
Complete outfits on any system Rolls or Stones for Wheat Grinding.

Send for Circular of our \$500 Flour Mill Outfit.

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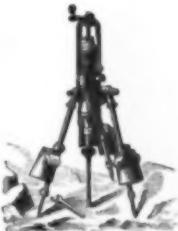
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MORSE, WILLIAMS & CO.

Successors to
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Manufacturers and Builders of HYDRAULIC STEAM, BELT and Hand-Power, PASSENGER and FREIGHT ELEVATORS | With most approved Safety Devices.
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Works: FRANKFORD AVE., WILDEY & SHACKANAXON STS. | PHILADELPHIA, PA.
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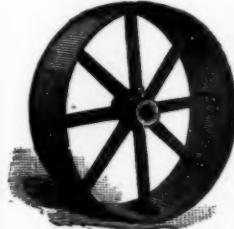


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Machinery for Tunneling, Grading, Mining, Quarrying, etc.
TEN COMPLETE TUNNELING PLANTS FURNISHED FOR SOUTH PENNA. RAILROAD, PA.



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OVER 300,000 NOW IN USE. THE LIGHTEST, STRONGEST, BEST BALANCED and CHEAPEST in the WORLD.

Whole Pulleys from 9 inches to 120 inches diameter. Split Pulleys from 12 inches to 120 inches diameter. All widths of face up to 36 inches, crowning or straight, with single, double or triple sets of arms. Also Tight and Loose Pulleys. Absolute satisfaction guaranteed.

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Manufacturers of Shultz Patent Filled Leather Belting, Lace and Picker Leather.

OUR BELTING is made of Leather, tanned on the surfaces only; the interior (which is the fibre and strength of the hide) is not tanned, but Rawhide filled and softened by our patent process. Our belting is more pliable, and hugs the pulley better and transmits more power than any other belt. It does not pull out at the laceholes or rivets. It stretches less than any other belt. It works equally well for the largest driving belts or for the fastest running machinery and smallest pulleys. OUR LACE LEATHER is made of Rawhide, by our patent process, without any tanning and is stronger and will wear better than any other. WE ALSO MAKE THE BEST PICKER-LEATHER AND BELT GREASE IN THE COUNTRY. Satisfaction guaranteed.

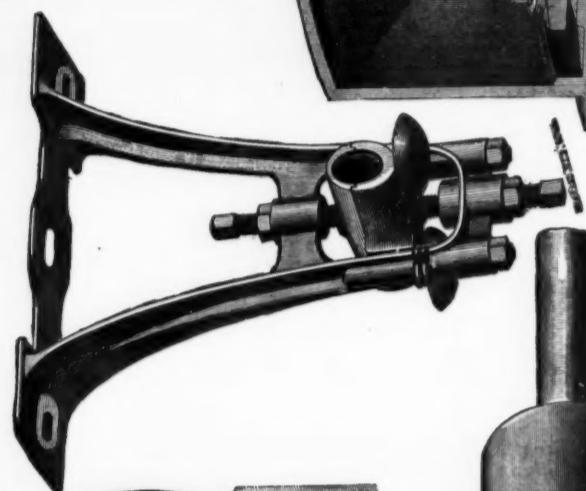
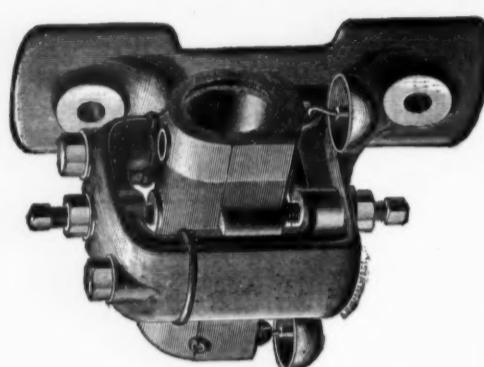
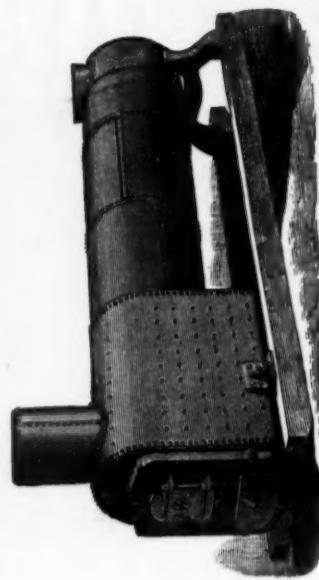
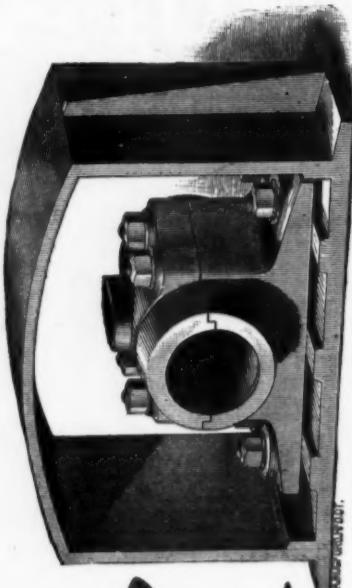
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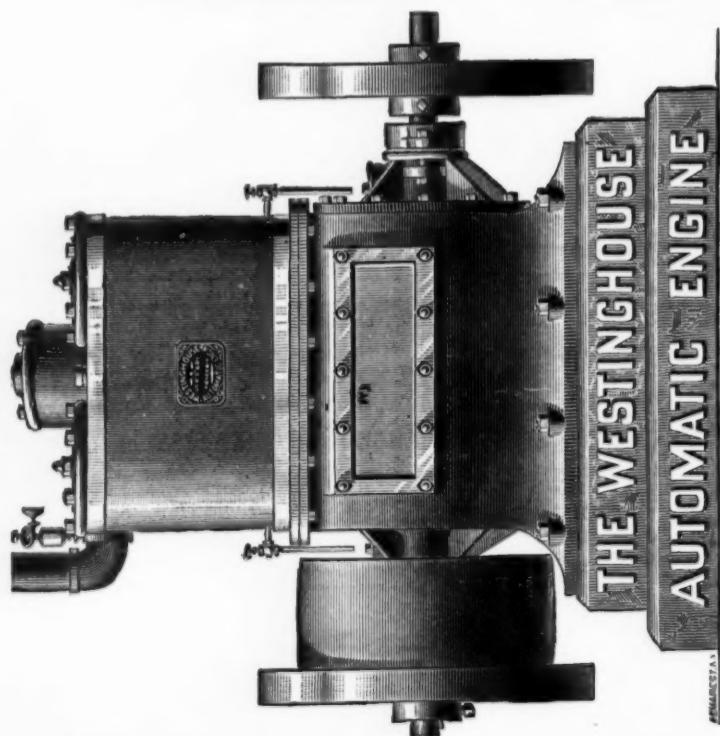
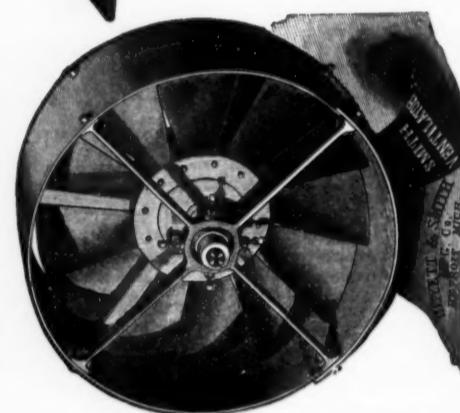
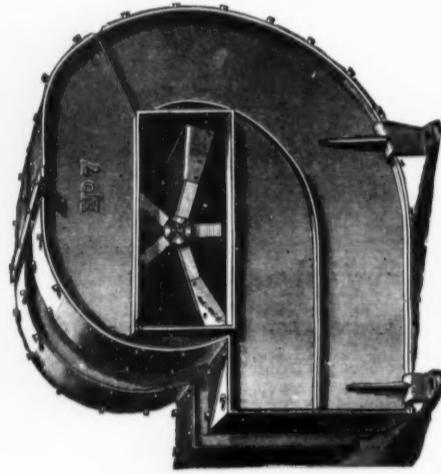
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Oak Belting, Lace and Picker Leather, and Dealers in Supplies for Cotton, Woolen and Silk Mills.

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We Manufacture both Worsted and Cotton Machine-Knit Mail Harness for Weaving Fine Worsted and Silk Goods. Also a Full Line of Supplies for Jacquard Looms.

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WE HAVE
Unequalled Facilities for Furnishing

Shuttles & Heddle Frames,
WIRE HEDDLES and WIRE GOODS

Of all Descriptions.



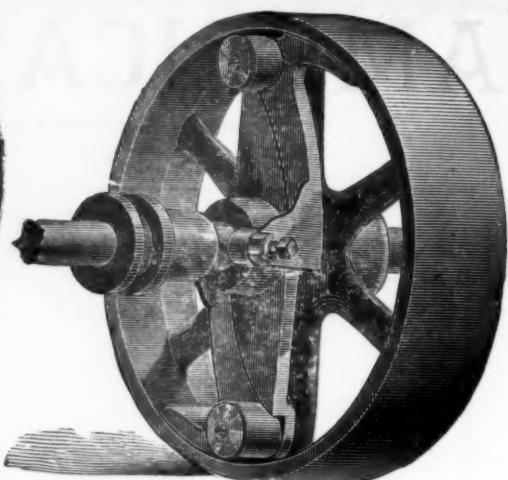
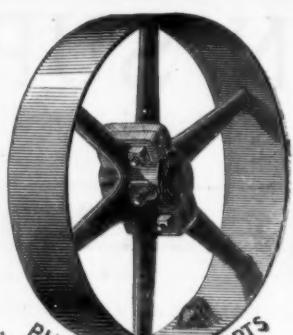
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Ball and Socket
Self-Oiling Pillow Block.

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Office, 2106 Wood St., Philadelphia.
THOMAS WOOD.
Manufacture as Specialties
Power Looms, Patent Bobbin
Winding Machines, Plain and Quill
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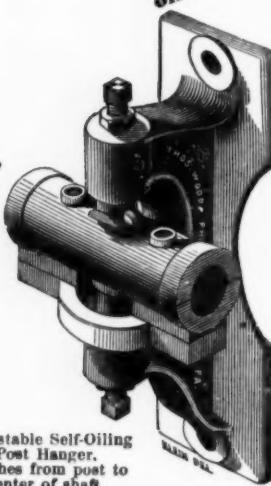
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16, 18 and 20 yards Circumference,
WITH IMPROVED HECKS.

SHAFTING,
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8, 10, 12, 15, 18, 20, 24 AND 30 IN. DROP.
Also WALL POST AND GIRDER HANGERS.
PATENT FRICTION PULLEY.
Pulleys in two parts, any size required.
PATENT HOISTING MACHINES
Oil Presses for Lard, Fish and Paradise.



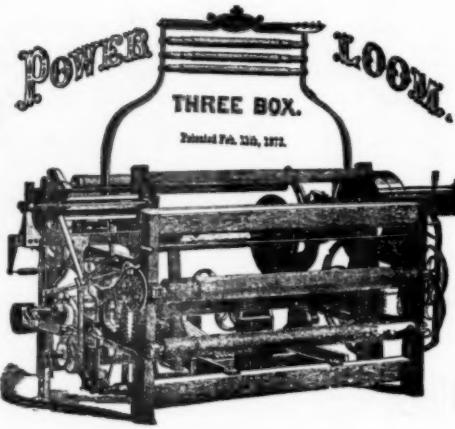
PATENT FRICTION PULLEY.

Simple, reliable and very durable.
Suitable for any kind of driving, they
serve equally well as driver or driven.

ADJUSTABLE SELF OILING HANGER.
Adjustable Self-Oiling Post Hanger.
6 inches from post to center of shaft.

Why use old style Bearings, that require oiling every day, when you can get Bearings at less cost that only require oiling once in Six Months, and thus save oil and labor enough to pay for the bearings in use. Test the matter for yourselves; a trial always secures the trade.

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Office, 2106 Wood St.
PHILADELPHIA, PENNA., U. S. A.

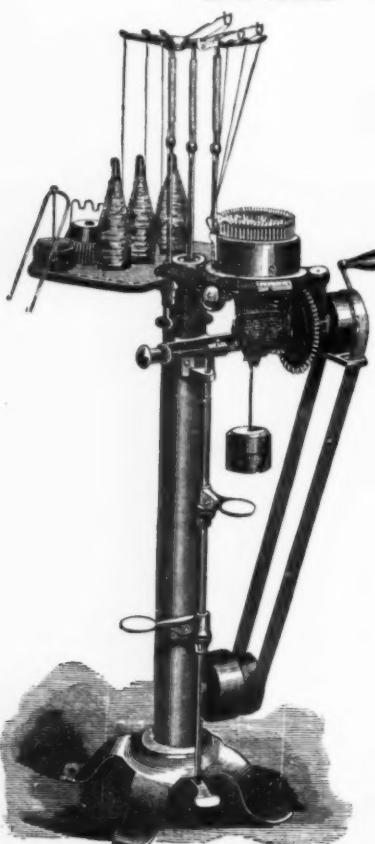


THE LAMB KNITTING MACHINE MANUFACTURING CO.

MANUFACTURERS OF

THE LAMB KNITTING MACHINES,
TUTTLE KNITTING MACHINE,

AND
New AUTOMATIC CIRCULAR RIB KNITTING MACHINE



The Tuttle Machine has power attachment, and is the most desirable and substantial built machine for making Half-Hose ever invented. Has attachment for making both plain and rib work.

THE LAMB MACHINE.

Send for Full Particulars of
the Above Machines to

THE LAMB KNITTING MACHINE MANUF. CO., CHICOOPEE FALLS, MASS.

IN CORRESPONDING, PLEASE MENTION "THE MANUFACTURERS' RECORD."

New Automatic Circular Rib Knitting Machine

For Knitting Ribbed Tops for Socks, Shirt Cuffs, and Drawer Bottoms.

This machine will produce from twenty-five to thirty dozen pairs of Cuffs in ten hours, making the WELT and LOOSE COURSE AUTOMATICALLY. The Needle Cylinder and Dial are made of FORGED CAST STEEL, and everything about the machine is built in the most THOROUGH and WORKMANLIKE manner, with the view of having them run the longest possible time without repairs. They are complete within themselves.

We make them any number of ribs desired.

THE LAMB MACHINE
IS THE ONLY
MACHINE



That knits hosiery or tubular work of all sizes.
That narrows and widens on hosiery or tubular work.
That knits a regular, right-angle heel, such as is knit by hand.
That narrows off the toe.
That knits a sock or stocking complete.
That knits mittens and gloves of any size without a seam.
That forms genuine Ribbed or Seamed work.
That knits the Double, Flat, or Fancy Webs.
That knits an elastic seam-stitch Suspender with button holes.
That knits the Afghan stitch, Cardigan Jumper stitch, Fancy Ribbed stitch, the Raised Plaid stitch, the Nubia stitch, Shell stitch, Unique stitch, Tidy stitch, &c., &c.

It is now the Standard Machine for manufacturing all lengths of needle beds, from 8 inches by 60 inches, and cuts from four needles to the inch to ten to the inch. More of these machines have been made and sold than all others combined.

The Lamb Knitting Machine Mfg. Co's New
CIRCULAR RIB KNITTING MACHINE,
For Knitting Ribbed Tops, for Socks, Shirt Cuffs
and Drawer Bottoms.

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HOWARD & BULLOUGH, & RILEY,
BUILDERS AND IMPORTERS OF
COTTON MACHINERY.

ALSO, IMPORTERS OF
Wool, Worsted and Flax Machinery and English Card Clothing. Hardened and Tempered Steel Wire a Specialty.
MILL ENGINEERS.

GREAT SUCCESS OF OUR

PATENT ELECTRIC STOP-MOTION,

ALREADY APPLIED TO OVER
10,000 DELIVERY HEADS
OF DRAWING, AND
71,000 INTERMEDIATE
ROVING SPINDLES.

The quality of Sliver produced by our Frames
surpasses all others, and Waste, Single and Roller Laps
are prevented, and production increased.

Correspondence Solicited. Send for Circulars.

No. 19 PEARL STREET, BOSTON, MASS.

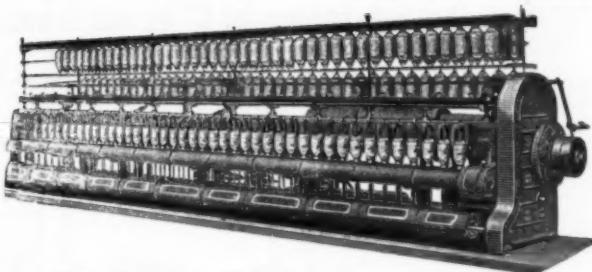
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EXHAUST OPENERS, LAPERS, (LORD'S
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PRODUCE MORE AND MAKE LESS
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7,000 SELF-STOPPING WARPERS,
Already working with latest improvements.

800 CYLINDER SLASHERS
Now at work in America alone

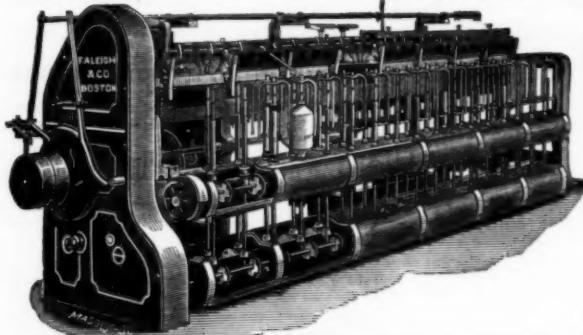
Patent and plain Spindle, Spinning and Twisting Frames,
Spoolers, Reels and Circular Warpers, Cloth Folders, Size Kettles
plain and Fancy Looms, Spindles, Flyers and Fluted Rolls.



SLUBBING AND ROVING FRAMES WITH LATEST AND BEST IMPROVEMENTS.

F. A. LEIGH & CO.
Importers of Mill Machinery,

—No. 40 WATER STREET, BOSTON, MASS.—



Openers, * Lappers, * Cards, * Drawing,
Slubbing and Roving Frames,
CARD CLOTHING, ETC.

Correspondence Solicited. Send for Circulars.



GANDY'S PATENT MACHINE BELTING

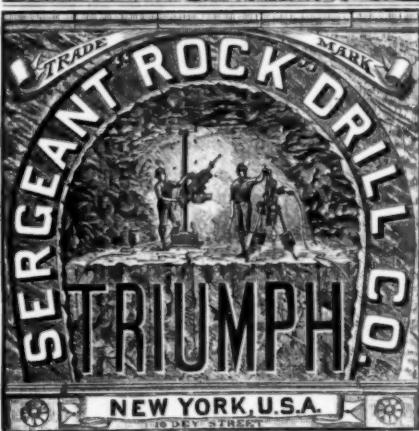
GOLD MEDAL AWARDED NEW ORLEANS, 1885, FOR BEST RUNNING BELTS.

Made PERFECTLY Straight and any Length without Joints.

For Main Driving it is the Best. Much Cheaper Than Leather.

MANUFACTURED BY

THE GANDY BELTING CO., BALTIMORE, MD.



THE "TRIUMPH" ROCK DRILL
and NORWALK AIR COMPRESSOR

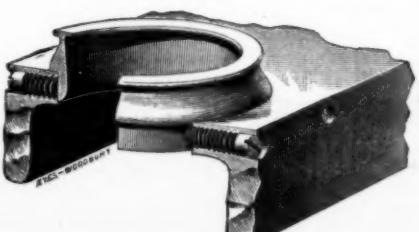
Are the Latest and Most Improved Machines that were ever designed for the work required of them. They are the Most Simple, Economical and Effective now known, and will satisfy all Purchasers.

Boilers, Steam Pumps, Hoisting Engines, Pipe and Fittings, Electric
Blasting Apparatus, Powder, Caps and Fuse, Steam and Air Hose, Wire Rope,
—And General Mining and Contractors' Supplies.—

Complete Specifications for Rock Drilling and Mining Plants Furnished on Application.

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WHITINSVILLE SPINNING RING CO.



WHITINSVILLE, MASS., U. S. A.

SUPERIOR WORKMANSHIP.

NOT EXCELLED IN DURABILITY.

EVERY RING WARRANTED.

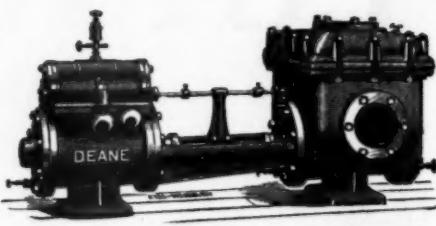
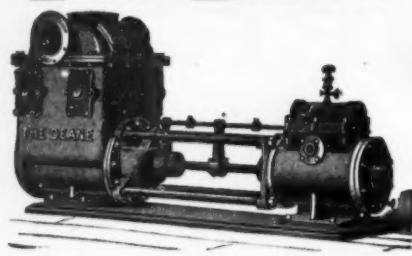


The Simplest and Best Method of Adjusting Rings.

SEND FOR SAMPLE AND PRICE-LIST.

THE DEANE STEAM PUMP CO., HOLYOKE, MASS.

MANUFACTURE



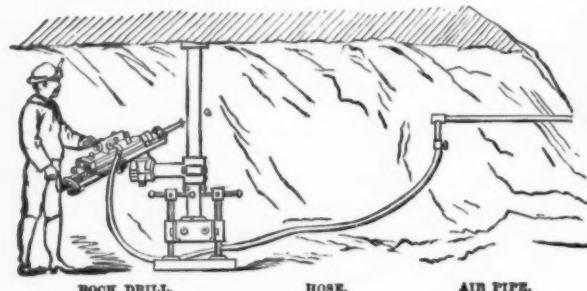
Every variety of Pumping Machinery

VACUUM PUMPS FOR SUGAR WORK, ETC.

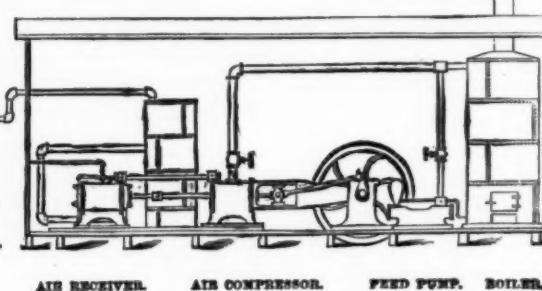
IRRIGATION PUMPS ARE SPECIALTIES.

Water Works Pumping Engines for Cities and Towns.

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AIR RECEIVER.

AIR COMPRESSOR.

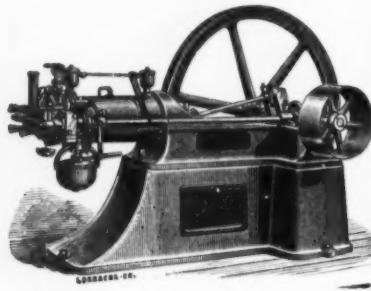
FEED PUMP.

BOILER.

RAND DRILL CO.

23 Park Place, NEW YORK.

Rock Drills,
Air Compressors, and
General Mining Machinery,
Rackarock Blasting Powder,
Blasting Batteries and Fuse.



Over 14,000 in Use.

Otto Gas Engine

20 to 70 per cent less Gas consumption than ANY other ENGINE.

Working Without Boiler, Steam, Coal, Ashes or Attendance.

Started instantly by a Match, it gives full power immediately. When stopped, all expense ceases.

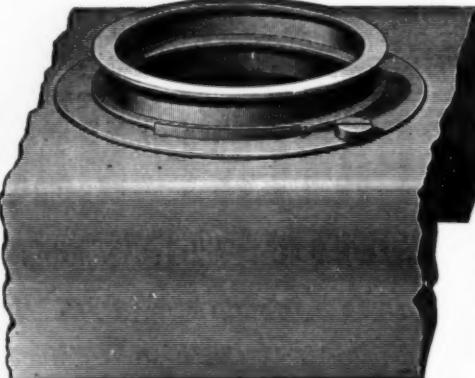
No explosions, no fires nor cinders, no gauges, no pumps, no engineer or other attendant while running. Recommended by insurance companies. UNSURPASSED IN EVERY RESPECT for hoisting in warehouses, printing, ventilating, running small shops, &c. Sizes: 1 to 25-horse power.

Branch Office, 214 Randolph St., Chicago. SCHLEICHER, SCHUMM & CO., N. E. cor. 33d and Walnut Sts., Philadelphia.

DOUBLE ADJUSTABLE Spinning Rings.

GEORGE DRAPER & SONS,
HOPEDALE, MASS.

TELEGRAPH ADDRESS AND RAILROAD STATION,
MILFORD, MASS.



Number of Rings sold.	Number of Rings sold for repairs.
1869..... 6,025.....	
1870..... 20,358.....	
1871..... 38,648.....	
1872..... 94,564.....	12
1873..... 117,301.....	
1874..... 168,385.....	500
1875..... 223,984.....	963
1876..... 185,319.....	947
1877..... 270,811.....	946
1878..... 215,214.....	3,309
1879..... 336,918.....	8,007
1880..... 357,360.....	11,264
1881..... 659,730.....	8,974
1882..... 636,713.....	22,515
1883..... 416,500.....	21,689
1884..... 319,869.....	25,105
1885, 5 mos. 112,532.....	12,118
Total number sold in 16 years..... 4,390,260	116,349
Total number in use..... 4,273,911	

Total number in use 4,273,911.

The great durability of our Rings is shown by the fact that we have more rings in use over twelve years old than all we have sold for repairs.

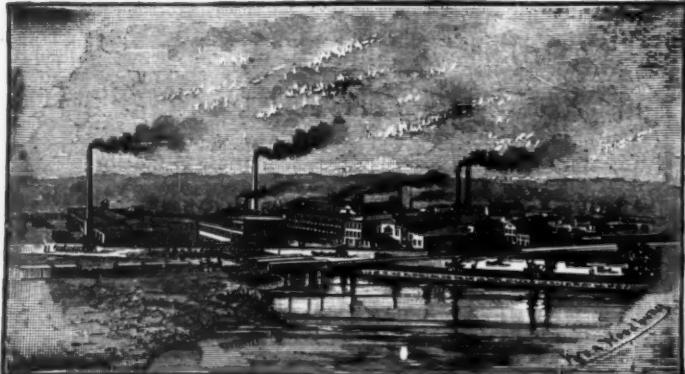
This statement shows unmistakably that a mill once supplied with our rings need think but little of the cost of repairs. As the number sold for repairs is an average of about twenty per cent. of the number sold the tenth year before, the average life of our rings will be at least twelve years.

Do not make the mistake of ordering new frames without specifying Double and Adjustable Rings. While they cost more to begin with, they are much the cheapest in the end, on account of their uniform excellent quality and unparalleled durability.

As an encouragement to use none but the best of Rings, we have decided to reduce the price on and after the first day of January, 1885, of those 1½ inches or less in diameter, without holders and screws, to be used only to take the place of our rings worn out, to 25 cents each.

Washburn & Moen Manufacturing Co., Worcester, Mass.

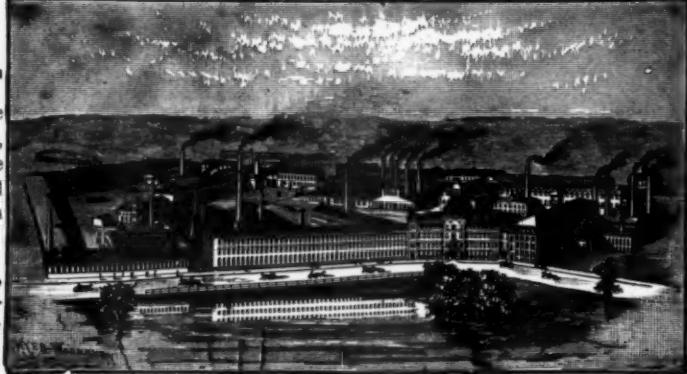
Wire Drawers, and Manufacturers of Iron and Steel Wire of Every Description.



Iron and Steel Telegraph and Telephone Wire.

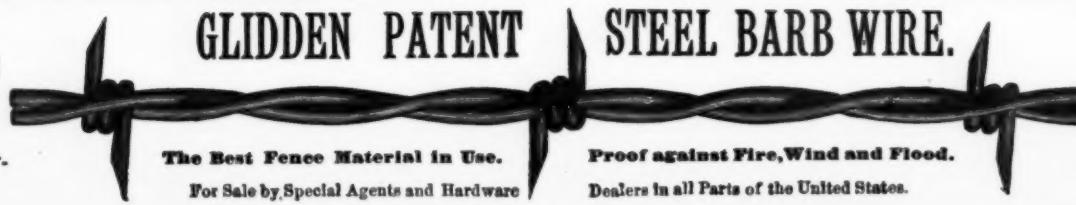
Patent Steel Wire Bale Ties, Pump Chains, Chain Wire, Steel Wire for Springs, Needles and Drills, Watch Main Springs.

Send for Price-Lists, Circulars and Descriptive Pamphlets on Our Specialties.



NEW YORK WAREHOUSE:
21 Cliff Street,
New York City.

GLIDDEN PATENT STEEL BARB WIRE.



The Best Fence Material in Use.
For Sale by Special Agents and Hardware

Proof against Fire, Wind and Flood.
Dealers in all Parts of the United States.

CHICAGO WAREHOUSE:
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Chicago, Illinois.

BALTIMORE Manufacturers' Record.

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R. H. EDMONDS, EDITOR.

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BALTIMORE.

NEW YORK BRANCH OFFICE:

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J. W. BIGSBY, Resident Partner.

SOUTHERN OFFICE, ATLANTA, GA.—

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Advertising Agent for New York and Vicinity.
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OTHER COUNTRIES, - - - 4.50

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" " " " 4 "	5.00
" " " " 3 mos....	10.00
" " " " 6 "	18.00
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For advertising on outside pages add 50 per cent. to the above rates.

Reading Notices 50 cents per line each insertion.

BALTIMORE, OCTOBER 3, 1885.

CORRESPONDENCE relating to the manufacturing, mining, lumbering and all other material interests of the Southern States is solicited. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the MANUFACTURERS' RECORD offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested. We will take great pleasure at all times in telling what has already been accomplished in the South, and showing up the opportunities of doing still more.

THE Montgomery Long Fibre Cotton Gin Company, of Washington, D. C., is the name of a company that promises to work a revolution in cotton ginning. They are the owners of a patent for the treatment of cotton by chemical means, whereby every particle of the cotton, they claim, is separated from the seed, leaving the latter as smooth as if polished. The process is said not to injure in the slightest degree, either the cotton or the seed; and moreover, the cotton is detached in its natural condition, leaving the long, fleecy fibre just as it grows. This, of course, will add to its value, making it more like the long staple cotton. The successful operation of such a method as this would increase enormously the cash value of the crop, in addition to its other numerous manifest advantages. The process can be used with the present style of gin, and the company is arranging to license gins now in operation. Meanwhile they are themselves perfecting machinery to take the place of the old style of gin. The process has been put into operation at Griffin, Ga., and the company is now putting up machinery there to use it on a larger scale. If the claims of this company regarding this invention are confirmed, when put to the most thorough tests, its importance can hardly be overestimated.

A Town that has Outgrown its Banking Facilities.

The growth of tobacco manufacturing in Abingdon, Va., as told to the MANUFACTURERS' RECORD by Mr. F. B. Hurt, of that town, a few days ago, is very interesting. About eight or nine years ago a Lynchburg tobacco manufacturer conceived the idea that as labor was very cheap in Abingdon it would pay to establish a tobacco factory there. Acting on this idea he did so, and for a while purchased the leaf tobacco in other sections. The country around Abingdon had never, up to that time, been regarded as having the proper soil for producing tobacco, but a few farmers concluded that as there was a factory in operation they would see if they could not raise tobacco. They succeeded so well that since that time the tobacco crop, tributary to Abingdon, has about doubled every year. From one factory, buying its leaf tobacco in other sections, the business has grown till there are now some nine or ten factories, and even these can't begin to handle all the tobacco that seeks Abingdon as a market. In the last five years the population of the town has doubled.

All through the South towns are growing up like this. Like Abingdon, however, many of them are restricted in their business by the lack of banking capital. Notwithstanding the great increase in business and in population since the establishment of the first tobacco factory in Abingdon, there has been no increase in the banking capital of the place. The stock raisers alone could use every dollar that the Abingdon banks can lend and pay 8 to 10 per cent. interest. They are the old customers of these banks. Their business has been a steady and prosperous one for years, but they often need considerable money so as to hold their stock for a good market. If they were, however, permitted to use all the funds of the banks, the manufacturers and merchants would be entirely without banking facilities. To avoid this the banks of course have to do the best they can for all classes. Speaking of these things Mr. Hurt stated that the banking facilities were totally inadequate to handle the business of the town and adjacent country. He came to Baltimore to call the attention of the big tobacco manufacturers of this city to the enormous tobacco crop of this year, and to induce them to purchase some of their leaf tobacco in Abingdon. Capital to handle the crop and purchasers to buy it are badly needed in Abingdon.

There are dozens, some say hundreds, of Southern towns in which trade has far outgrown banking facilities, and in which all business interests must suffer on this account. Here are openings in abundance for the profitable employment of capital. It is, too, a line of business in which capital is welcomed, and against which Southern legislators have not attempted to display any hostility as has been done against railroads.

Extension of the Carolina Central Railroad.

The Carolina Central Railroad Co. have commenced the construction of an important extension of their road from Shelby to Rutherfordton. The work will be pushed forward rapidly. It will develop a splendid country that is badly in need of railroad facilities. The owners of the Carolina Central property long ago decided upon building this extension of their line, and at the last session of the North Carolina legislature secured the necessary legislation. Having prepared their plans they have gone to work to build this road, and the reputation of the managers of this company is a sufficient guarantee that they will complete it as soon as possible. Mr. John M. Robinson, of Baltimore, the president of the Old Bay Line of steamers and the Roanoke & Seaboard Railroad, and who is also president of the Carolina Central, has just returned from North Carolina after having made arrangements to vigorously push the building of this important line.

There has been a good deal of talk about the building of a railroad through the same section as that to be traversed by the Carolina Central's extension, but what backing the new enterprise has, except some county subscriptions, we have never heard. The Charlotte Democrat says of it:

"The people of Cleveland and Rutherford seem to have great faith in the ability of a so-called 'Boston syndicate' to give them additional railroad facilities, and they are now sneering at the Carolina Central Company, but Northern newspaper correspondents don't seem to have much faith in the financial capacity of the Northern concern. Our own opinion (though it may not be worth much) is that if the people of Cleveland and Rutherford ever get more railroad facilities than they now have, they must acknowledge indebtedness to the Carolina Central for them. The Carolina Central now has capital enough to make its connections any direction it may wish."

The Carolina Central is, as the Democrat says, able to make connections in any directions that its managers may desire. It is a part of one of the best managed railroad systems in the United States. There are no stock jobbing speculative operations in this property. It is a legitimately and honestly managed system, that is conducted on business principles. And hence very naturally it is in the best financial condition. It is this system that has for several years been ready to spend several million dollars in extending its lines entirely across South Carolina just as soon as the people of that State are ready to grant a charter that will keep the road free from the control of an irresponsible railroad commission.

A Good Suggestion.

In commenting on the suggestion of J. J. O'Ferrall, of Natchez, that cotton instead of being put up in its present unwieldy form, be packed in bales of a size that can be easily carried or handled by a single man, the Natchez Democrat says:

"The rolling of the heavy bales of cotton through the mud and slush of the river landing is one great source of the complaints in regard to badly-handled cotton, the blame of which too often falls upon the planter. In the long ago legislation was attempted in vain to protect the cotton planter against the injury his cotton received from the rough and careless handling of his cotton bales by steamboat men. A law remained for many years a dead letter on the statute books of Mississippi by which it was made a fineable offense to use cotton hooks in handling cotton."

If the bales were compactly pressed in small packages that could be carried by the hands of the boat, cotton would be loaded without either being plastered with mud or the covering torn off with cotton hooks while being placed aboard a steamboat. Western farmers have long since abandoned the unwieldy bales in which they used to pack their hay, and the small packages in which they now send it to market might, we think, be profitably imitated by Southern farmers in putting up their cotton.

Arrangements could be made for freight rates by weight, instead of by the bale, which would be fairer both to the shipper and the carrier, and if the rate should even be a little higher on the small bales, the enhanced value of the cotton by putting it in the market in clean, unbroken packages, would more than make up for a slight difference in freight."

Diversified Farming.

Major L. A. Ransom, of the South Carolina Agricultural Department, in the course of a private letter to the editor of the MANUFACTURERS' RECORD, says of the farming interests of that State:

"The lack of proper transportation facilities seems to be the great difficulty in the way of an extension of this industry (truck farming) further South. The railroads have, however, in the last few years, shown greater interest in the matter, and given it some encouragement by offering lower rates and prompt delivery. Our farmers all recognize the importance of a greater diversity of crops, but find it very hard to cultivate other crops than cotton under liens. In fact, they can only get advances of money and provisions on the cotton crop. The general impression is that the present crop has been made cheaper than any for years, and the proceeds of it may leave the farmers in a better condition next year, and more independent of factors. As soon as they do get a little ahead, you will see an agricultural improvement at the South that will 'astonish the natives.'"

THE Birmingham Chronicle says: "There is now no doubt that a new iron furnace will be built at Talladega. The money is to be supplied by English capitalists, and the ore, timber and limestone by George W. Chambers, of Talladega. The furnace will work the brown hematite ores so abundant in the mountains immediately north of the town. These ores have been used for years by the charcoal furnaces along the East Tennessee, Virginia & Georgia road, between Talladega and Rome. A plant of foreign capital is always welcome."

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

The Industrial Interests of Birmingham.

[Special correspondence MANUFACTURERS' RECORD.]

BIRMINGHAM, ALA., Sept. 25, 1885.

Since the order of the State railway commission, directing all the railways doing business in Birmingham, the Georgia Pacific excepted, to put up station buildings within 60 days, there has been little of the sensational sort in the business life of this truly busy town. Steady progress in every department is noticeable, and, although there is nothing yet justifying the term "boom," there is every indication that something of the kind, questionable benefit as it always is, must be expected with the return of better times throughout the country. As far as the local situation is concerned, the times would be considered good enough now were it not for fears that Congress is about to raise the tariff and silver ghosts again, and that the legislature may have some further tinkering to do in the matter of railway legislation. In the latter connection there is a better feeling extant in the State than formerly. The truth that development of natural resources must involve a friendly attitude to outside capital has begun to dawn even upon the strong granger element in Alabama; and the unfortunate results of legislation in Georgia, antagonistic to railways, has perhaps exercised a good influence. In this and in other practical directions the people of Alabama are advancing.

THE IRON MARKET.

The strong upward turn which some of the most sanguine Southern operators looked for, while it has not yet materialized, has given signs that it is not far off and will soon appear, unless deterred by events not apparently now on the cards. The satisfactory condition of the Southern crops, and other favorable circumstances, familiar to readers of the MANUFACTURERS' RECORD, seem to justify the view that better prices and a more active market are to be realized during the autumn. It must be admitted that the better prices are not yet quotable, but there has been such a marked stiffening of the demand during the past week that the leading iron masters of Birmingham are quite well pleased with the outlook. Of the 8 coke furnaces in the district all but one, the Sloss No. 2, are in blast, and the one excepted will probably start up within a month or two, or as soon as the current repairs shall be completed. The output of the 7 furnaces now in operation is about as follows:

	Daily output.	Weekly output.
	Tons.	Tons.
Furnaces.		
Mary Pratt, 1.....	35	245
Sloss, 1.....	80	560
Eureka, 2.....	80	560
Alice, 2.....	125	875
Woodward, 1.....	80	560
Total.....	400	2,800

COAL MATTERS.

The week has been a quiet one in the coal interests. Mr. H. F. de Bardeleben is figuring a little in the light of a public benefactor in that he is delivering an excellent quality of domestic fuel from his "Henry Ellen" mines, in the Cahaba field, to the good people of Birmingham at \$2.50 per ton. At the mines everything is quiet, and there does not appear to be any prospect of further labor troubles. It is possible that the miners are beginning to realize that their situation is not a very bad one compared with that of the operators. As a matter of fact the coal developments of the district more than keep pace with the consuming power of the region within normal reach of the field. No doubt consumption may overtake production by and by, but it is not impossible that new outlets may have to be found before that desirable point is arrived at. Just now the unpleasant fact is patent that, to a great extent, the Alabama coal field is shut out from its natural market at New Orleans, where Alabama coals should be handled cheaply enough to control the gulf coal trade. As it stands, with freights by rail necessarily high, in comparison with

river charges, the Pittsburgh shippers have the advantage notwithstanding the long haul from Pennsylvania to the Crescent City. To be sure there is a large quantity of coal carried in by the railways. The Louisville & Nashville, the Queen & Crescent, Georgia Pacific, Mobile & Ohio and Illinois Central are all doing their best to meet the situation; but the Pittsburgh buyers have rather the best of the game.

WATER AGAINST WATER.

Several plans have been conceived and formulated to improve this situation. There are hopes that a moderate improvement of the Tombigbee to Tuscaloosa, on the edge of the Warrior field, will bring the Warrior coals cheaply within the grasp of Mobile, and the progressive element in that city is much elated with the idea of one day capturing the Gulf and export coal trade from New Orleans. An effort will undoubtedly be made to secure enough governmental assistance to give effect to this scheme. It is probable that it will be successful in some degree, and that a great deal of cheap coal will find its way to Mobile by water in the future. But the Tombigbee and other streams connecting the coal fields by tide-water, are phenomenally treacherous and shifting, and it is not at all certain that they can ever be made reliable enough to be depended upon to supply Alabama with the needed outlet. On the whole a better prospect appears in connection with the projects for connecting Birmingham with the Tennessee river. As the RECORD has heretofore noted, the Sheffield road is now in hands likely to complete it and that will afford much relief. There is reason for believing that, via Sheffield, Alabama coals can be laid down at New Orleans at figures lower than Pittsburg coal men would care to compete with. The road from Attala on the A. G. S. railway, to Guntersville, on the Tennessee, now under construction, may also prove helpful after the further improvement of the waterway in question.

MOVEMENTS IN CLAY.

It is not settled yet what degree of importance is to be attached to the recent discovery of an apparently superior quality of fire clay a few miles above this city. That will depend largely upon the extent of the deposit. The material itself is identical in appearance with that found on the Pennsylvania side not far from Cumberland, Maryland, and which probably makes the best furnace brick in the country. Many attempts have been made hereabouts to find a clay exactly suited to the demands of the market, but the results have not been satisfactory, and none of the home productions have thus far tested with the article imported at high cost from the East. Should the latest discovery settle the question of local manufacture favorably a considerable industry will be the result. In the matter of pottery clays we are better off. Within easy haul of Birmingham there is a bed of kaolin of large extent, directly on the railway. The quality of the material is said by experts to rank with some of the best European clays, and it is not improbable that one of the leading eastern pottery companies may establish a plant at this point to utilize it. There is a large and rapidly growing crockery market in the Mississippi Valley which should be served on better terms from northern Alabama than from Ohio, the present chief source of supply. G. B. W.

THE Atlanta Capitol has been a remarkable success. Started only about two months ago as an evening paper, it has already secured over 5,200 subscribers. It is one of the brightest and newsiest papers in the country, and yet is scrupulously careful to avoid everything sensational. It is a credit to Southern journalism. Col. Avery, the editor, has our best wishes for prosperity.

A Prosperous Texas Town.

CORSICANA, TEX., Sept. 21, 1885.

Editor Manufacturers' Record:

A few facts regarding this city may be of interest to your readers.

In 1880 our population was 3,350, and the assessed value of our property \$1,000,000. In 1880 our scholastic population between 8 and 16 was as follows: White, 298; colored, 150; total, 448.

In 1885 our population is 6,200. Our last assessed value was \$1,761,320, and the present assessment ought to be when completed, \$1,875,000.

Our present scholastic census is as follows: White, 842; colored, 455; total, 1,297. Out of this number the following cannot read: White, 32; colored, 40; total, 72.

Our city has also an ordinance admitting children between 7 and 16, and of that age we have 73.

Our city has charge of the schools, and the free-school system is in vogue. We have the schools well graded, and 15 teachers and one superintendent in charge. The white and colored schools are kept separate. The schools have a revenue of \$16,000 per annum, derived from city ad valorem tax and from the lease of lands owned by the State and county. With this we employ the best talent 9 months in the year, and appropriate a sinking fund more than sufficient to pay our school bonds at maturity. Our schools are surpassed by none in the State.

Our taxation is 1 per cent., divided as follows: $\frac{1}{2}$ for schools, $\frac{1}{4}$ for water, and $\frac{1}{4}$ for general purposes.

Our city has no floating indebtedness—scrip is at par—every fund having a surplus to its credit. There is a bonded indebtedness of \$30,000, all for school buildings and furniture. The last issue of bonds were sold above par. The interest is paid semi-annually, and there has never been a default in the payment of interest.

We have a water supply and pressure giving all the business portion and a large portion of the resident city absolute protection. Both stand pipe and pump pressure are used. The fire department is well equipped. The insurance rate within the fire limits is \$1.40.

Since 1880 the following manufacturing establishments have been erected: A large cotton compress, oil mill, flour mill and ice factory. The city will soon be lighted by electricity.

We are anxious to have manufacturing interests come among us. Any line will do well here, and I shall be glad to correspond with any of them desiring to make investments.

We are located on the main lines of the Houston & Texas Central and the Texas & St. Louis Railroads, crossing at right angles, giving us a freight rate equal to any in the State. The H. & T. C. R. R. has its auxiliary round-house here, employing about 70 men. The flour mill has a capacity of 300 barrels per day; the ice factory 15 tons per day, with cold storage. R. S. NEBLETT.

A Railroad to St. Mary's, Ga.

ST. MARY'S, GA., Sept. 21, 1885.

Editor Manufacturers' Record:

Shortly after the close of the late war between the States, mills for the manufacture of lumber were erected here, but failed in January, 1883. Since that time many of our people have been compelled to leave and labor elsewhere, to support their families living here.

In a few weeks, the East Georgia & Florida Railroad, with terminal points at Jacksonville, Fla., and Augusta, Georgia, via St. Mary's, Georgia, will be started. It will be built from Hart's Road, Florida, to Jesup, Georgia, first, and thence to Millen, Georgia, placing us in connection with the entire Georgia and Florida system of roads. We will be from three to

four miles nearer the entire Florida system than Fernandina. We will be about twenty-seven miles by rail to Jacksonville, Fla. It will be twenty-nine miles nearer to Jacksonville via St. Mary's from Savannah, than the present line, so I have been informed by an engineer.

Our city adopted a very liberal policy to secure the road, and will continue on that line, as the opposing elements have been harmonized. We have the same bar that Fernandina has, a beautiful and deep river, and a commodious and safe harbor, and a splendid frontage. Including North River, bounding the city on the east, and emptying into the St. Mary's at a point about five miles from the bar, it is estimated that six miles of frontage could be utilized.

It is universally admitted that there is no healthier city to be found in this country. And we have very fine drinking water, which is so conducive to health. Disinterested parties who have been inspecting the situation, say that they think that our opportunities will be very great, as we will be on the direct and shortest route connecting the great Georgia & Florida Railroad systems. We will tap the Florida system at Hart's Road, eleven miles from Fernandina and twenty-one miles from Jacksonville; and tap the Brunswick & Western twenty-eight miles from Brunswick, and connect with the Savannah Coast Line and the East Tennessee, Virginia and Georgia road at Jesup, and finally, the Georgia Central at Millen, and on to Augusta, with the Richmond & Danville; so that after being out of the railroad world for so many years, we will be quite in the world when our road is completed, which will be next year. We expect to connect with the Florida system in January.

J. M. ARNEW, Mayor.

A Timely Caution.

There are signs that the southward march of hundreds of operators is again beginning. They will find plenty of victims, but if the press all over the South will put the people on their guard, none but the most ignorant or careless will suffer serious loss, and a large portion of these pests of society will be forestalled and many of them will receive the punishment they so richly deserve. A little experience and a little close observation will enable almost anyone to distinguish between the deserving and the undeserving. It is a good deal better for one to be over-cautious when dealing with strangers than to have too much confidence in human nature.—Savannah News.

The above advice is well worth heeding. There is no doubt but that the South is to become the seat of operations of many unprincipled speculators. The development of the South, its increase in wealth, and the attention it is now everywhere attracting, will make it a most inviting field for sharpers. It would be just as well for the Southern people to closely investigate all enterprises to which they are invited to contribute money before handing in their subscriptions. If the enterprise is of the right character a careful investigation will be preferred by its projectors.

NOBLE, BROS. & CO., of the Anniston Car Wheel Works, Anniston, Ala., have just completed a steam forge with two trains of rolls for making the axles on which their car wheels are fastened. The capacity of this forge is 60 tons of car axles per day.

MINING NOTES.

By T. K. BRUNER, Salisbury, N. C.

FRAZIER MINE.

Work at the Frazier Mine, in Mecklenburg county, is unchanged; but as the option is not far from expiring, the explorations are not pushed with the vigor desirable. The ore thus far mined has been of a superior character, and is free milling.

THE DUNN MINE

in Mecklenburg county has been allowed to fill with water. It is hard to conjecture why, since the ore taken out of it is of fair milling grade.

THE RUDISILL AGAIN.

Probably the most famous mine in Mecklenburg county is *in statu quo*. Funds are lacking for pushing underground work; the ore found in the new shaft and levels on Brush Hill (the north end of the mine), was good, but not abundant. It is probable that if skilled superintendents, bosses and miners are employed when work is resumed, more satisfactory developments will result. The north end of the mine will bear skilled investigation.

CAPP'S HILL MINE,

also in Mecklenburg county, is filled with water again, owing to legal matters, and not on account of lack of ore; it is reported that it is to be opened soon. It should be, for it is among the best and most reliable mines of that county, and only needs capital and deep work to show something good.

HAILE MINE,

just over the South Carolina border, is doing as usual; its output is very steady, and the news from it is distressingly monotonous; would there were many more like it. They have an enormous dump of reserve ore ready for the new mill when it goes to work.

THE BREWER MINE,

also in South Carolina, is moving steadily along, with no changes of importance.

STRUCK IT RICH.

C. C. Wade, Esq., of Troy, Montgomery county, N. C., has just struck a very rich free milling gold vein on Little River. The ore is quartz, in talco-argillaceous slate formation, and does not show but little free gold to the eye, but produces wonderful results in the pan. It is worth several hundred dollars per ton, and is perfectly free milling. The vein is two and a half to three and a half feet wide, and has been opened at several places, the deepest being twenty feet, where splendid ore is found. Montgomery county is the most noted locality for free and surface gold in North Carolina, and this new find of Mr. Wade's bids fair to prove a veritable bonanza.

MINT ASSAYING.

For a long time the people of Georgia and the Carolinas have been depending largely on the mints for general assaying, but the recent order from the United States Bureau of Mints, forbidding assaying of ores in all the mints and assay offices of the government, must prove an inconvenience. The order is most likely a temporary one, and will doubtless be rescinded as soon as proper information can be furnished the bureau. Some reform was undoubtedly needed, but this order is rather sweeping. The order does not affect assaying of bullion or any of the regular work of any of the stations.

HUNTSVILLE GOLD MINE.

In reply to an inquiry as to the facts in regard to the Huntsville Gold Mine, figuring recently in the press as a new bonanza, the following facts are submitted: There is an abandoned shaft, or shafts, near Huntsville, in Yadkin county, which were worked for gold by inexperienced men, with crude implements, just before the war of the Confederate States. Specimens were sent out in all directions (at that time) by these men,

who continued to work and reported the mine very rich. The war put an end to operations, and nothing has been done since except to send specimens out at various times. The property is owned by a family named Gross, but has been placed in the hands of Dr. J. H. Wolff, Yadkinsville, N. C., for sale or lease. This fact may, and most probably does, account for the article going the rounds of the press; and it must have emanated from an enthusiastic pen. Further investigations are in progress, and if anything of importance results, the RECORD will give the facts to the public.

CRANBERRY IRON.

Large quantities of pig, and about ten car loads of ore, are being shipped daily from this mine.

Of this Cranberry iron ore, the late Prof. W. C. Kerr, State Geologist of N. C., remarks: "The softness and toughness of this iron

Scroll Saw.

The Scroll Saw, of which the accompanying cut is an illustration, is designed for both heavy and light sawing.

The frame is heavy and specially constructed for strength and firmness. The table is composed of alternate strips of cherry and black walnut, securely glued together. The forged steel cross-head below the table runs in adjustable gun-metal slides. The manufacturers say of this machine that: "The strain is without doubt one of the most simple and durable on the market. It holds the saw at an even tension at all points of the stroke. It has but one straight strap, on which there is no friction; the same strap will last for years, a fact that will be appreciated by parties using other strains on which the straps are continually breaking, causing much annoyance and loss of time.



SCROLI. SAW.

very remarkable; and its tensile strength, as tested by the United States Ordnance Department, ranks with that of the best irons known. The blooms from the Cranberry forges have been extensively used in Baltimore for boiler iron, and commanded fifteen dollars a ton above the market. In quality it is unsurpassed by any iron in the world. And in regard to quantity, the bed much exceeds the great deposits of Missouri and Michigan, and, at least, equals anything in the Champlain region."

The supply is by no means confined to Cranberry, as there are many deposits—some traceable for six miles in tabular extent—yet untouched, waiting for the miner's pick.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

The tension on saw is easily regulated by means of small hand wheels at the base of the steel coil springs at each side of the strain. Adjustable stay rods are attached to the frame of the strain to hold it firm and true when put up. Carefully and well seasoned hickory is used for pitman and wooden part of strain. The machine has a 4½ inch stroke, and can be run at a very high rate of speed without jarring in the least. The combined shifter and brake is attached to the machine convenient to the foot of the operator and takes effect instantaneously. The loose and tight pulleys are 6x3, and should run from 1,200 to 1,400 revolutions per minute." For prices and further particulars address Cordesman, Meyer & Co., 170 and 172 West Second street, Cincinnati, Ohio.

THE KING BRIDGE COMPANY have contracted to build five iron bridges at Giddings and one at Schulenberg, Texas.

Prosperous Times at Birmingham.

BIRMINGHAM, ALA., Sept. 21, 1885.
Editor Manufacturers' Record:

In speaking to a directory man recently, he assured me that he fully expected to be able to place at least 22,000 names on the Birmingham directory this fall,—an increase in one year of over 4,000. We have a great building boom on hand now, the value of houses, stores, as at present being built, totals up to half a million dollars, and one furnace is being built at a cost of \$250,000. Contractors of every class are doing well, and good men are scarce in nearly all trades.

All furnaces, foundries, machine shops and the rolling mills, are running on full time, only one furnace being out of blast for repairs and alterations. The Elyton Land Company are finishing a bridge for double team car lines and foot ways—over the railroad tracks connecting the Highland Avenue Railroad with the business portion of the city. The Birmingham City Railroad, whose stock changed hands lately, some Nashville capitalists becoming the purchasers, are remodeling the system and extending the lines in several directions.

The city itself is doing a vast quantity of work in grading the streets, repairing the sidewalks and laying furnace stays down on all the thoroughfares. The sewerage is also receiving attention, and large contracts are being let, and we will soon have it said of us, that Birmingham could not be healthier.

Railroads to center here are projected from no less than five different directions; and there is every probability of three at least being built,—one already being under construction—the Birmingham & Sheffield Railroad. Another line to Memphis is being surveyed. This will go from here direct to Holly Springs, Mississippi, and connect with a road now being built to Memphis. A line is projected to Goodwater, in this State, a distance of sixty miles, and will connect us with Columbus, Ga. The Georgia Pacific Railroad have now fully determined to close the gap at present existing on their line, and will give us direct connection with Columbus, Miss.

The Warrior Coal Fields Railroad is also very likely to be built. This line will run from here in a northeasterly direction. Of all these lines, the certainty of the building of the Georgia Pacific extension, the B. & S. R. R., and the B. & M. R. R., is almost assured.

The most important of these enterprises is certainly the Memphis line, which will pass for sixty miles through the finest coal field in the South, and will cause an interchange of our iron and coal for the provisions and grain of the great Northwest. At Memphis it will connect with Kansas City in a direct line, and thence to the Pacific. We are certainly on the eve of a most prosperous era; and with the great business depression that has been felt all over the union, this country has been steadily going forward, not being influenced by any outside occurrences. No city ever was, and no city ever will be, built on surer foundations for prosperity throughout all time, than is Birmingham, Alabama.

VERITAS.

AN "Illustrated Catalogue of Machine Tools, made from Newly-Designed Patterns" has been issued by Messrs. E. Gould & Eberhardt. In the introductory Messrs. Gould & Eberhardt say: "Having during the last six months added largely to our list of regular tools, we were obliged to issue a more complete list of the tools we build, and so present this new edition, comprising the leading tools we are now engaged in manufacturing." Full descriptions of the many tools made by this well-known firm are given, and also many particulars that will be of interest to users of machine tools.

CONSTRUCTION DEPARTMENT.

EPUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

An English syndicate, it is reported, has purchased from B. Friedman, Tuscaloosa, Alabama, over 50,000 acres of coal and iron lands which they will develop.

John P. Street & Co. have nearly completed their large ginnery and mill at Hayneville, Alabama.

Richard Coulter, of Greensburg, Pennsylvania, is president, and Adam Glass, of Mobile, Alabama, is vice-president of the Penn-Mobile Coal Company, reported last week as organized in Mobile, Alabama. A large body of coal lands has been purchased at a cost of \$100,000, and the company will at once put in a large coal mining plant.

The Birmingham Iron Works, Birmingham, Alabama, has received the contract for building the Talladega, Ala., Water Works, to cost \$20,000.

A new mill has been put up at Pushmataha, Alabama.

Bland & Diller, Selma, Ala., have established a broom factory.

W. G. Wharton, of Montgomery, Ala., president of the Wharton Company Mills, previously reported, is receiving bids for the erection of their mill at Birmingham, Ala.; capital of the company is \$40,000.

Oliver Weiser, of York, Pa., previously reported as intending to build a chain factory in the South, has, with J. E. Dubois, of Alabama, secured a site 200x360 feet, in Birmingham, Ala., on which they will begin at once the erection of a large factory; about \$10,000 will, it is reported, be invested.

ARKANSAS.

The Batesville Mining Company, Batesville, Ark., has been organized.

FLORIDA.

A company has been formed at Altamonte, Fla., to manufacture jellies. Work on factory has commenced.

Another saw mill will probably be erected at Altamonte, Florida.

Roach & Davis are erecting a saw mill at Cotton Plant, Fla.

GEORGIA.

The Macon, Ga., Gas Light & Water Company have applied to have their charter amended, giving them power to furnish electric lights.

White & Beck will start a steam laundry in Atlanta, Ga.

The contract has been let for the erection of a three-story brick hotel in Monroe, Ga.

T. H. Cheek, Marietta, Ga., who was reported as contemplating building a flour mill in Chattanooga, writes us: "The notice in the Chattanooga papers is false, and was published without my knowledge."

The Columbus Iron Works Co., Columbus, Ga., have received contract to furnish machinery for the Gorrie Ice Co., Savannah, Ga., previously reported.

Work on the East Georgia & Florida Railroad, to run from Hart's Road to Jesup, Fla., will, it is reported, be commenced at once.

R. E. Whitehead, Cartersville, Ga., has purchased a mill which he will repair and operate.

It is reported that a cotton compress, to cost about \$10,000, will be built in Columbus, Ga., by stockholders of the Florida Railroad & Navigation Company, and the Merchants & Planters Line of Steamers.

Bills have been introduced into the Georgia Legislature to incorporate the Cincinnati, Georgia & Florida Railroad Company and the Albany, Preston & Columbus Railroad Company.

The contract for erecting a factory for the Coweta Fertilizer Company, Newnan, Ga., has been let to the R. D. Cole Manufacturing Company of that place.

The capital stock of the Columbus Barrel Manufacturing Company, previously reported as organized in Columbus, Ga., is \$5,000.

J. R. Irwin is erecting a steam grist mill at Chappells, Ga.

George M. Snodgrass, of Texas, is in Athens, Georgia, with a view to constructing a street railroad.

M. L. Flowers & Co., Rome, Ga., will increase their capacity for manufacturing well fixtures.

KENTUCKY.

J. K. Srouse has received the contract for building gas works for the Citizens Gas Light Company, Maysville, Kentucky.

Samuel S. Brown, Chris. Bonher and Jordon Giles have incorporated in Louisville, Ky., the Western Contract Company, capital stock \$25,000, to build railroads, bridges, etc.

Lawrence Bradley, Timothy Driscoll, John M. Martin, Jr. and Samuel D. Tompkins have incorporated in Louisville, Ky., the Cœur d'Alene Water and Mining Company, to do a general milling and mining business in Idaho; capital stock to be \$250,000.

D. Boulnis and Isaac Johnston have established a saw mill at Oakland, Ky.

Reutlinger & Eisfelder, Henderson, Ky., whose brewery was reported last week as damaged by explosion, are repairing it.

Jacob Flegle has sold his mill at Woodville, Ky., to House & Matlock, and is building a new mill at Arlington, Ky.

The Maysville Cotton Mills, Maysville, Ky., are being improved, and new boilers put in.

The Monarch Novelty Company, has been incorporated in Covington, Ky., by F. H. Anderson and M. G. Trueman, to manufacture and sell patent articles and novelties. Capital stock \$20,000.

The Falls City Varnish Company, Lewis Collins, president, Louisville, Ky., has been organized to manufacture varnishes, driers, etc. Capital stock \$10,000.

The Louisville Water Co., Louisville, Ky., have let the contract for building an embankment for a pumping station to Jacob Bickel at \$15,500.

LOUISIANA.

Foster & Son, New Orleans, La., will build a saw mill.

Ballentine & Rogers, New Orleans, La., have received contract to build the railroad from Vermillionville to Baton Rouge, La., previously reported.

L. D. Martin is building a rice mill in St. John's Parish, Louisiana.

MARYLAND.

The Baltimore Pulverizing Co., H. G. Penniman, manager, are erecting at the corner of Philpot and Mill streets, Baltimore, pulverizing works to pulverize all classes of minerals, phosphates, cement rock, gold and silver ore, baryta, limestone, &c., &c., for the trade generally. The machinery is now being put in position.

The Western Maryland Telephone Company has been organized in Frederick, Md., by J. W. Downey, of New Market, Md., M. P. Wood, of Monrovia, Md., and others, to do a telegraph, telephone and electric light business. Capital stock \$100,000.

W. H. Nile, W. Cornell Jewett, D. D. Morrison, Thomas C. Bassett and Geo. M. Booke have incorporated the Washington & St. Mary Railroad Company; capital stock \$4,000,000, to build a road from Point Lookout, Md., to the District of Columbia.

MISSISSIPPI.

The Aberdeen Fertilizer Oil & Manufacturing Co., Aberdeen, Miss., the organization of which was previously reported, we are informed, have commenced building an oil mill.

The Louisville, New Orleans & Texas Railroad Company, are surveying a road to run from Lola to Glendale, Mississippi, which will, it is said, be constructed at once.

Contracts for building 70 miles of the Yazoo & Mississippi Valley Railroad have been let as follows: Sewell & McPherson, Boonesville, Mo., 30 miles; J. C. Neely, Boxdell, Ky., 10 miles; J. H. Bethune, Charleston, Mo., 18 miles, and G. M. Gardy, Springfield, Mo., 12 miles.

NORTH CAROLINA.

It is reported that the Altamahaw Cotton Mill, Company Shops, N.C., will put in additional machinery.

The Greensboro Gas Company, Greensboro, N. C., has built a new gas holder at a cost of about \$6,000.

There is a prospect of the establishment of another tobacco factory at Raleigh, N. C.

It is reported that a tobacco factory and a warehouse are to be established at Wilson's Mills, N. C.

Sides & Spaugh, Winston, N. C., have purchased in Mount Airy, N. C., ground on which they will build a saw and planing mill.

W. H. Jacobs, Smith's Creek, N. C., has sold his steam saw mill to Kugler & Miner, Washington, N. C.

Parties are corresponding with the citizens of Washington, N. C., relative to establishing sumac mills there.

James Gamble, president of the Charlotte, N. C., Water Works, has decided to build another reservoir.

Frank Coxe, of Philadelphia, Pa., H. C. Eccles and Josiah Asbury of Charlotte, N. C., propose to erect in Asheville, N. C., a large and costly hotel.

Mr. Murch, of Maine, has the contract for furnishing a large amount of dressed granite to the city of Cincinnati, and expects to secure a large part of it in or near Asheville, N. C.

J. P. Verrel, of Philadelphia, contemplates the erection of a cotton compress in Raleigh, N. C., by next season.

Efforts are being made to establish a tobacco factory in Waynesville, N. C.

TENNESSEE.

Fay & Eichberg, Atlanta, Ga., have received contract for erecting a \$25,000 school building in Nashville, Tenn.

Furnace No 1, of the Tennessee Coal, Iron & Railroad Company, at South Pittsburg, Tenn., has been blown out, and the plant will be remodeled and capacity increased.

Frank Evans is in Kingston, Tenn., looking for a suitable location for establishing a tannery.

The Columbia Pump Factory, Columbia, Tennessee, will put in additional machinery to double their capacity.

The Electric Light Company of Chattanooga, Tenn., will put in a new engine and dynamo and make other improvements.

J. R. Ryan has received the contract for building a convent at Chattanooga, Tenn., to cost about \$12,000.

J. Benjamin of Cleveland, Ohio, is in Chattanooga, Tenn., prospecting with a view to locating there a large basket factory.

The capital stock of the Schuyler Electric Light & Power Co., Knoxville, Tenn., previously reported, is \$60,000. S. P. Evans is president, and John C. Houk, secretary and treasurer.

Thos. E. Jones & Sons, Hillsboro, Tenn., previously reported as building a saw mill, expect to put up a flour mill next spring.

The flour mill, previously reported as to be built at Sweetwater, Tenn., by the Sweetwater Mill Co., will cost, including warehouse, \$35,000.

W. M. Cassette & Co., Nashville, Tenn., have lately established a factory for manufacturing lubricating and other oils.

The Chattanooga Foundry & Iron Pipe Works, David Giles, president, contemplate enlarging their works in Chattanooga, Tennessee.

G. O. Hildebrand, Tullahoma, Tenn., will manufacture sashes, doors, &c.

TEXAS.

D. C. Robison, Bloomfield, Texas, contemplates moving his mill to Burns City.

William Annesser, of Ottoway, Ohio, has purchased the old Schooler mill property in Fort Worth, Texas, for \$6,000, and will erect a large flouring mill to cost \$30,000.

John Metzger, of Chicago, is in Denison, Texas, with a view to starting an ice factory, and will, it is said, begin work soon.

The Denton Mill & Elevator Co., Denton, Texas, are building a large iron-covered warehouse.

A citizen of Atlanta, Texas, has leased gold land, and will erect a large crusher and smelter.

The Ahrenbeck Oil Mills, Brenham, Texas, have been sold to Sampson Heidenheimer, of Galveston, for \$38,500.

Jot. Gunter, Dallas, Texas, will erect a three-story brick building 50x100 feet.

The D. J. Anthony Street Car Co., will build a street railroad in Terrell, Texas.

The Denison Mining and Manufacturing Co-operative Association has been chartered at Denison, Texas, to mine coal. Capital stock \$10,000.

The Alliance Milling Co., Denton, Texas, reported as chartered last week, will build a flour mill with daily capacity of 100 barrels.

P. J. Butler, Dallas, Texas, has received the contract for erecting a two story building, 60x70 feet, at \$13,000.

G. L. Franklin, Lampasas, Texas, previously reported as preparing to develop coal property, has organized a coal mining company. Will shortly commence mining.

Scott & Youree, Denison, Texas, contemplate establishing an ice factory at that place, and are negotiating for machinery.

LOCKWOOD, GREENE & CO.

MILL ENGINEERS

Office, 65 Westminster St., Providence, R. I.

Carefully prepared plans, specifications and estimates furnished for the construction, equipment and organization of new mills and the revision and improvement of old.

The incorporators of the East Dallas Water Supply Co., previously reported, are W. B. Wright, W. H. Gaston, J. B. Simpson, T. L. Marsalis and T. J. Oliver.

Frank Reast will establish a grist mill in Denison, Texas.

VIRGINIA.

The Atlantic Iron Works, Norfolk, Va., reported last week as sold, were the old works of that name located near the city, and not the Atlantic Iron Works, of which W. A. Anderson is president. These works will probably be enlarged to meet increased business.

John S. Garber has started a spoke and handle factory at Sangersville, Va., and will add more machinery to increase his output.

P. L. Terry & Co., Roanoke, Va., contemplate enlarging their tobacco factory.

Mineral lands in Alleghany county, Va., have been leased by Pennsylvania capitalists, who will shortly begin mining.

M. P. O'Hern, Waynesboro, Va., will work manganese deposits on his land.

WEST VIRGINIA.

Fred. Balcom, of 234 Broadway, New York; William J. Smith, of Baltimore; and E. A. Gillispie, George A. Deleree and Walter A. Deleree, have incorporated in West Virginia, to mine coal, the Wolf Creek Coal Company. Capital paid up, \$100,000. Will mine coal in Alabama. Fred. Balcom, 234 Broadway, New York, can give particulars.

The Grafton Gas Company, Grafton, W. Va., are enlarging and improving their works at cost of \$2,500.

It is reported that a rolling mill will be erected in Huntington, W. Va., and that the money will be furnished by C. P. Huntington, of New York.

Henry V. Thompson, representing a canning factory at Madison, Indiana, is looking for a location for it somewhere in the South.

BURNED.

Gin house of Adeline Rutland, Lancaster, S. C.

J. M. McDaniell's gin house, at Modoc, Ga.

Hornday & Mitchell's distillery, near Tulahoma, Tenn., damaged badly by explosion of mill stone.

Saw mill of W. D. Kilby, on Alligator bayou, Lee county, Ark.; loss \$5,000.

Flour and corn mill of O. P. Gibson, six miles from Shelby, N. C.; loss \$1,500.

F. Fabel's Sons soap factory, Louisville, Ky., damaged \$15,000 by boiler explosion.

J. L. Blainie's large mill and gin, at Greenville, Texas.

Johnson & Caldwell's gin, at Hillsboro, Texas; loss \$3,600.

Morman Pope's saw mill, in Crockett county, Tenn.

Flour and saw mill of Coleman Bros., Mountain Cove, W. Va.; loss \$5,000 to \$6,000.

Gin of J. McDaniel, McCormick, S. C.; loss \$1,800.

The saw mill of N. McGill, Greensburg, W. Va., has been destroyed by boiler explosion.

The cotton gin and grist mill of John S. Wimberly, St. George's, S. C.

An Oil Mill.

ABERDEEN, Miss., September 14, 1885.

Editor Manufacturers' Record:

There is no oil mill in operation here as yet, but the Aberdeen Fertilizer, Oil & Manufacturing Company have commenced building one.

C. A. MCKINON.

Building a Planing Mill.

NEWPORT, KY., September 23, 1885.
Editor Manufacturers' Record:

We are erecting a planing mill, 60 feet front by 80 feet deep, three stories high, brick.

JOS. K. STONE.

Will Build a Saw Mill.

MT. AIRY, N. C., September 22, 1885.
Editor Manufacturers' Record:

I am going to put up a saw mill in Patrick county, six miles from Mt. Airy; it will be run by Robberts & Siceloff.

L. S. SICELOFF.

A Grist Mill.

MILBORO DEPOT, VA., Sept. 22, 1885.
Editor Manufacturers' Record:

We are going to run a planer and other wood-working machinery and a grist mill at this place.

GILLESPIE BROS.

The Atlantic Iron Works.

NORFOLK, VA., September 23, 1885.
Editor Manufacturers' Record:

I must thank you for yours of the 21st, and in reply will state that the sale you have reference to was the real estate of the old Atlantic Iron Works in Norfolk county, Va., of which the machinery was all sold several years ago. The Atlantic Iron Works, Norfolk City, Va., W. A. Anderson, proprietor, are still blooming, and full of activity, so much so that our trade is calling for more room to accommodate it. W. A. ANDERSON.

A \$12,000 Flour Mill.

LIBERTY, VA., September 26, 1885.
Editor Manufacturers' Record:

The Messrs. Tate Bros., of this place, are completing their new flouring mill at a cost of about \$12,000 with the patent roller process.

MATTHEWS & WRIGHT.

A \$250,000 Coal Company.

MOBILE, ALA., September 24, 1885.

Editor Manufacturers' Record:

The Penn-Mobile Coal Company organized this day; capital \$250,000; mines situated in Walker county, Ala.; business office and location of corporation Mobile, Ala.; President, Richard Coulter; Vice President, Adam Glass; Secretary, Geo. H. Huff. Directors, J. W. Burke, Richard Coulter, A. W. Jones, Adam Glass, Geo. H. Huff. Will engage in mining coal.

Machinery Wanted.

TALLADEGA, ALA., September 23, 1885.

Editor Manufacturers' Record:

We have bought the Lide Red Ochre Mines, and have also bought an engine, but having had no experience in grinding the material we are at a loss to know what kind of a mill is best adapted to our wants. We are now investigating this matter. Would be glad to have manufacturers of mills for this purpose correspond with us. The material is very fine and easily crushed. As soon as we are fully in operation (which will be as early as we can obtain the right kind of machinery) we want to make our output run to about ten tons per day of ground red Ochre barreled and ready for shipment.

We also want information in regard to barrels, as it will require about seventy per day to contain our product. SIMMS & SMITH.

\$20,000 for Machinery.

LAGRANGE, GA., Sept. 25, 1885.

Editor Manufacturers' Record:

We shall refit our mill for sheetings, shirtings and drills, and begin work in short time. We shall spend at least \$20,000 in improvements. JOHN L. ROBERTSON,

Prest. Troup Factory.

Developing Coal and Ore Property.

DAISY, TENN., September 27, 1885.

Editor Manufacturers' Record:

We are building 50 coke ovens and will build 100 more; built new railroad, incline and chutes; will employ 150 men; cost so far of new works will be \$35,000; the cash outlay has been about \$100,000. Our coal coke will analyze 89% fixed carbon; ash 6%; sulphur 89-100. We have opened a quarry of superior white sandstone, excellent for building and trimmings.

We are now opening an iron ore mine within $\frac{1}{4}$ of a mile, of red fossiliferous ore, 4 to 5 feet thick; runs 37 to 45 per cent.; needs no flux, as it contains limestone enough; makes a superior open fire iron. We have also about 5 feet of soft red ore very rich.

Near the Hiwassee River we have a very fine deposit of kaolin, 17 to 21 feet; said to be number 1 by potters, and a quarry of red and chocolate mottled marble which is near water transportation. We will be glad to correspond with parties who wish to use or buy either.

Our country invites capital, and large investments can be readily made with handsome profits.

TABLET-CRUDUP COAL & COKE CO.

Enlarging Gas Works.

GRAFTON, W. VA., Sept. 28, 1885.

Editor Manufacturers' Record:

We are putting in a gas holder at an expense of about \$2,500, our old one being insufficient to supply our consumers. The Wheeling Gas Works are putting in a new holder at an expense of about \$44,000.

C. O. NEWLON, Supt. Grafton Gas Co.

New Fertilizer Factory.

SANFORD, FLA., Sept. 22, 1885.

Editor Manufacturers' Record:

We will erect a new factory and put in additional machinery. Shall build the coming winter.

HOME FERTILIZER CO.

A Coal Mining Company.

COVINGTON, KY., Sept. 28, 1885.

Editor Manufacturers' Record:

The Kentucky Coal Mining Association has been organized, and will commence running as soon as possible—we cannot tell how soon, but think we will be able to commence before the new year. J. W. GILBERT.

Machinery Wanted.

BIRMINGHAM, ALA., Sept. 23, 1885.

Editor Manufacturers' Record:

We will commence the erection of a chain factory immediately; size of works 40x150 feet. The estimated cost and operation of same will be \$10,000. Will want to purchase steam engine and boiler, anvils, blast power, "chain" link winder and cutter. Would be pleased to have prices on any and all of machinery.

OLIVER WEISER,
Supt. Birmingham Chain Works.

Doubling Varnish Works.

LOUISVILLE, KY., Sept. 28, 1885.

Editor Manufacturers' Record:

Our works were totally destroyed July 8. On July 22d we were sufficiently rebuilt to begin shipments. Since August 1st our business has improved so that we have concluded to add still other buildings and increase our capacity almost double. Since the fire our buildings are built of brick and iron, and our improvements will cost about \$8,000. New buildings half done; boiler, engine, mixing machines, etc., on the ground.

LOUISVILLE ASPHALT VARNISH CO.,
LEWIS COLLINS, President.

Building New Kind of Compresses.

HUNTSVILLE, ALA., Sept. 28, 1885.

Editor Manufacturers' Record:

We have built our first-compress at Huntsville, Alabama, which has been sold to Scruggs, Landman & Co., cotton buyers and warehouse men at this place, who will operate it for compressing all cotton shipped from this depot. We find that we have, in this structure, ample power to compress the cotton bales to any required size. Our experimental test was made here, with 6-horse farm engine, 75 lbs. steam; bales of average weight—500 lbs. Breadth from 48 to 57 inches were compressed to 13½ inches. The power is practically unlimited, and only requires strength of structure to perform the work of the most ponderous and costly steam compresses in use. The company was incorporated as the Curry Press Company, with authorized capital \$1,000,000. At present doing business at Huntsville, Alabama. The company are engaged in building cotton compresses, plantation cotton presses, portable and stationery hay presses, fruit, cheese, tobacco, oil and other presses. These are inventions of B. J. Curry, of Huntsville, Alabama. The company will increase its force and capacity very soon to meet the demand already indicated for cotton compresses, and hay and other presses in their line.

CURRY PRESS CO.

A \$100,000 Mining Company.

NEW YORK, N. Y., Sept. 29, 1885.

Editor Manufacturers' Record:

The Wolf Creek Coal Co. has been organized, with a paid-up capital of \$100,000. Mine situated at Wolf creek, Walker county, Ala.; capacity 100 tons daily; mine now in working order.

FRED. BALCOM,
234 Broadway.

A \$10,000 Varnish Company.

LOUISVILLE, KY., September 28, 1885.

Editor Manufacturers' Record:

This company just organized, will begin manufacturing varnishes for manufacturers of agricultural implements, furniture, and clear varnishes generally, together with driers. Capital stock \$10,000. Officers and stockholders about the same as in the Louisville Asphalt Varnish Company.

FALLS CITY VARNISH CO.,
LEWIS COLLINS, President.

A \$30,000 Flour Mill.

OTTAWA, OHIO, Sept 28, 1885.

Editor Manufacturers' Record:

I will build at Fort Worth, Texas, a 125-barrel all-roller flouring mill. The mill will contain 14 Seth Gray's noiseless belt roller mills. It is to be the finest mill in the State of Texas. Work has already been commenced. It will cost about \$30,000.

WM. ANNESSER.

THE Greensboro Patriot, Greensboro, N. C., has published an 8 page special issue, showing up the growth of that town; and proving that Greensboro is making fine progress. The Patriot is to be commended for its enterprise, for it very largely depends upon the papers of any city or town to make its advantages and attractions known to the world.

ADVERTISERS wishing to reach manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the BALTIMORE MANUFACTURERS' RECORD. We are always prepared to furnish proof of our claims as to circulation.

Notes From Upper West Virginia.

Among the aspirants for favors in the steam coal markets the last three years probably none have been more successful in getting a good footing than the West Virginia Central Company, operating at Elk Garden. This Elk Garden field is the thickest soft coal seam mined anywhere in the United States, being fourteen feet thick, all of which is mined out and shipped. It is located in Mineral County, West Virginia, fourteen miles from Piedmont, on the north branch of the Potomac River.

Through the personal exertion of Senator Henry G. Davis, the company was organized on the 25th of June, 1881, under a charter of the State of West Virginia, authorizing them to construct a railroad along the waters of the north branch of the Potomac River, to a connection with any other railroad in the State, and also to buy and sell real estate, without limit, and to mine coal, iron ore and other minerals, and to manufacture timber. The company own along and near the line of this road, 29,069 acres of land holding coal and 3,175 acres of iron ore lands, and has mineral rights on 1,743 acres of coal lands and 3,664 acres of iron ore lands. Under this charter they soon completed eleven miles of the road to Shaw, from which point a branch was built three miles up a ravine to Mineville, where the two large tipples for loading coal are located. The road is now up to Davis Station, the junction of the Beaver and Blackwater rivers, 57½ miles from Piedmont, where the company shops, etc., will be located. At Piedmont it connects with the main stem of the Baltimore & Ohio Railroad, over which all the coal, timber and other freights are sent to the Eastern and Western markets.

The mining department on the mountain is under the general supervision of Mr. A. C. Rawlings.

At Mineville a large tipple was built at the foot of the mountain, from which 1,000 tons of coal can be loaded daily, being so arranged that either hoppers, gondolas or box cars can be speedily loaded, as trade demands. From here a well constructed double incline plane is run up the mountain 1,450 feet to the wheel house, down which all the loaded mine cars, two cars at a trip, are run and dumped. A tram-road, one mile in length, runs around the mountain to the No. 1 and No. 3 openings, to the mouth of which the coal is brought with horses, and the full trips are run by gravity to the wheel house, a large Porter locomotive being used to bring the empty cars back. A fine double track opening was made into the coal, running far back into the hill, with ten headings or entries turned off from it—five on either side. Some of these have already been worked out. Care was taken in making the opening so as to work to the rise of the coal and give good drainage. The coal seam runs about 14 feet in thickness, all of which is mined out. The rooms are worked 14 feet wide, a single line of post are kept alongside of the track as the miner advances, to secure the roof. The mine is ventilated with a furnace, 28 feet long, 5 feet 4 inches high and 5 feet 6 inches wide, with a 96-foot stack. No. 3 opening was made a few hundred yards to the right of No. 1 and worked in same manner. No. 2 mine was opened about two years ago a mile from No. 1. It was opened into the same seam and when in operation put out about 500 tons daily, but it has been idle since the strike several months ago. It is reached by a plane 2,350 feet long. Like all other coal fields, the shipments are a little slow this year, but they are doing fairly well, running but one mine. They employ 275 men and boys. The miners receive 40 cents per ton for run of mine coal.

The Atlantic & Georges Creek Consolidated Coal Company formerly operated the old Atlantic mine, near Pekin, on Georges Creek, Maryland, which was worked out during last

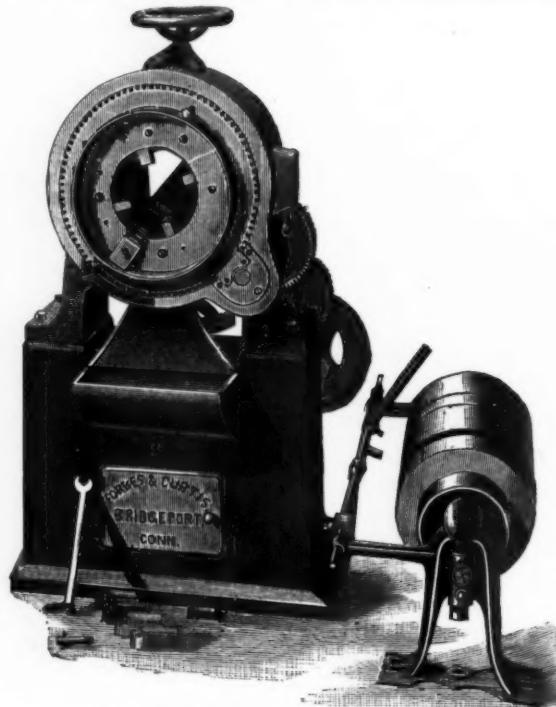
year. They secured a lease on a fine tract of this Elk Garden Big Vein coal, near the No. 2 Elk Garden mine, but on the mountain opposite. Mr. L. T. De Witt, general superintendent for the company, put a force of men to work making openings, building tracks, planes, etc., and shipped the first carload of coal the middle of January last. They are at present averaging only half time. A large tipple was erected at the foot of the mountain and a plane 1,700 feet long run up the mountain to the wheel house. A tram-road of 1,350 feet runs around the mountain to the opening into the coal seam, which averages fully 14 feet, and in some parts of the works a little over that. This mine has been well laid out and fitted up with the best of machinery and mine appliances, enabling them to put out a large yield of coal on short notice. The rooms are driven 13 feet wide, leaving 65 feet pillars between each, thus, they claim, enabling them to bring their pillars back without the loss of any coal. The headings are all laid with steel rails and automatic switches. About 100 men and boys are employed at the present time.

The Big Vein Coal Company secured a valuable piece of this Big Vein coal on the West Virginia Central & Pittsburgh Railroad, nine miles from Piedmont, and made

sively developed, the shipments from them not running over 500 tons a week. They have recently been testing this coal in the test coke ovens at Mineville, with, we learn satisfactory results. Should these tests prove as successful as they hope for, a number of coke ovens will be built at these mines some day in the near future.—The Coal Trade Journal.

No. 3½ Power Pipe Cutting and Threading Machine.

The accompanying illustration shows a No. 3½ Power Pipe Cutting and Threading Machine made by Messrs. Forbes & Curtis, Bridgeport, Conn., who have given the design of this tool great attention, and for rapidity of handling and general excellence, have produced a machine which, it is believed, fills all requirements, and which, coupled with its very low price, is gaining for them many orders. The bits (or dies) are four in number, and carried by a powerful gear, which is furnished with a lead-screw at its back. These bits are worked forward or back by the throw of a cam-ring, which is operated by means of a lever, allowing an adjustment for variations in



NO. 3½ POWER PIPE CUTTING AND THREADING MACHINE.

an opening into it a little over two years ago, under the supervision of their present general superintendent, Mr. James Little, a well-known mining boss, formerly of Lonaconing. The point at which their switches were put in and tipple built was named Windom, being on the main line of the road. The mine is reached by an incline plane 2,000 feet up the mountain to wheel house, then a tram-road 1,000 feet along the mountain face to the second plane, also 2,000 feet in length to the mine opening. Here is also found the 14-foot seam of coal, about all of which is taken out. Mr. Little has his works in good condition, but owing to dullness in the coal trade is only averaging about half time. Their shipments last year to January 1st were 83,170 tons. Shipments are generally made to Locust Point and Baltimore. At the present time about 100 men and boys are employed in and about these works.

The Davis Bros. have opened two mines under the general management of Col. Thomas B. Davis, in the upper Potomac region. The first opening was made in the 8-foot seam at Thomas Station, 50 miles from Piedmont, and the other into the 11-foot seam, near Davis, seven miles further up the present terminus of the road. This is said to be an excellent steam coal, and especially a fine blacksmithing coal. These two mines have not yet been very exten-

size of fittings. One set of bits threads all sizes of pipe from 2½ to 4 inches, and the second set from 4½ to 6 inches. The cut-off is actuated by a worm and wheel which gives a steady powerful feed. The lead-screw, before mentioned, is engaged with two large lead-screw blocks, one of which can be seen at the right of cut, about the middle of the shell. By means of handles, these blocks are thrown out of gear when the thread is cut, and on opening the dies, the gear can be at once drawn forward, and the dies closed ready for another pipe.

In cutting off, the gear is sent as far back as possible into the shell, and there by means of a pin (not shown in the cut), the lead-block of course being thrown out.

The jaws of the vise are extra strong, being 12 inches long and of ample strength to resist several times over all possible strain that may by accident be put upon them. The gearing has 2½ inch face. The driving cones have two changes of speed, and are 3 inch face. The counter-shaft is arranged for open and cross belts, allowing a few turns backward to be made before loosening the pipe. Further particulars can be obtained from the manufacturers.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive it regularly for one year, or six months for \$1.50.

Large Purchase of Southern Coal Lands.

One of the most important transactions ever consummated in Southern railroad and coal-mining circles has just been closed. It directly involves the control of 50,000 acres of first-class coal land in the heart of the Upper Measure coal field of Tennessee, and indirectly of 30,000 acres more, while as a railroad move it is shrewd and far-sighted on the part of the owners of the East Tennessee, Virginia & Georgia Railroad. A little history of the property involved is necessary to a full understanding of the character and magnitude of the transaction. Many years since, McEwen and Wiley claimed a large body of coal land in Anderson county, which was also claimed by Charles A. Bulkley, of New York City. Long law suits were the results, which were finally adjusted by a compromise in which each of the contestants, Charles A. Bulkley and McEwen and Wiley received one-half. A company was formed called the Coal Creek Mining & Manufacturing Co., to which the two interests above were transferred, and each party took their half of the stock, McEwen and Wiley having each one-fourth. The property was estimated to contain 40,000 acres, all coal land. Besides this vast area, McEwen and Wiley alone owned in Poplar creek and its tributaries, about 18 miles southwest of Coal creek, 40,000 acres more of coal land. The Knoxville & Ohio Railroad was completed to Coal creek in 1870, and various tracts of land were leased at a royalty of 1 cent per bushel, 25 cents per ton. The business has increased to such an extent that last year the shipments amounted to 260,000 tons. In 1876 a contract was made with McEwen & Wiley for the construction of a railroad from Emory Gap, on the line then being constructed, and the Cincinnati Railway, to the coal piles on the waters of Poplar creek, near Olivers. By this contract the company were to receive one-half interest in 30,000 acres of land, the McEwens, in addition, selling one-half of 7,000 acres. The land was surveyed and the right of way was secured. Delay in the completion of the Cincinnati Southern, and the unstable control of it for a time after completion, prevented the building of this road, called the Walden's Ridge Railroad. In the meantime a party of St. Louis capitalists, headed by Hon. Jno. S. Scott, bought the Oakdale Iron Works and commenced energetic operations. Their coal supply being found deficient, they had to go to Poplar creek for coal, and in 1880 Colton sold the Oakdale Company the charter of the Walden's Ridge Road and a half interest in the tract of 7,000 acres of coal land. This company completed it as a narrow gauge. From various causes their operations were a series of failures, and the property was offered for sale. The owners of the Coal Creek Mining & Manufacturing Company were induced to believe that a dangerous competition could be avoided by their buying the control of the stock of the Oakdale Company. They secured it for \$145,000. The railroad was then mortgaged for \$125,000 and was completed to Emory Gap as a wide gauge. Its operations did not prove remunerative immediately, and, the burden of debt for past cost as well as for equipment becoming oppressive, some of the stockholders became restive and sold their shares, among them being Mr. Chas. A. Bulkley, of New York, who still held his one-half. As from various causes the stock held by the McEwen estate has been sold to different parties, there is no doubt that Messrs. Thomas, Brice & Co. and others, the active owners of the East Tennessee, Virginia & Georgia Railroad, have secured an ample control of this large and valuable property.

Some idea of the value of this property may be gathered from the following facts: In 1871 the Knoxville & Ohio Railroad transported over its line 36,000 tons of coal; in 1873 the amount was 61,182; in 1874 it fell to 43,187; in 1875 it again rose to 66,143; in 1876 it increased to 73,431; in 1880 it came to 150,000 tons, and in 1882 to 200,000 tons. All of this coal after 1876 was from Coal creek, and before that time nearly the whole amount came from that locality. Hence it is safe to estimate that there has been shipped from Coal creek to January, 1885, fully 1,500,000 tons of coal, which has paid the land owners a royalty of \$375,000, an average of nearly \$27,000 per annum, but which at the present time, for Poplar creek and Coal creek both, can be safely estimated at over \$50,000 per annum, sufficient without possible railroad profits to pay 5 per cent. interest on \$1,000,000 of 5 per cent. bonds. Of this Messrs. Thomas, Brice & Co. secure over one-half, probably equivalent to a royalty of \$30,000. There never has been before any transaction in the South of its actual magnitude and of its great future importance to the iron as well as the coal interests of that section.—H. E. C. in Iron Age,

A Happy City.**The Remarkable Rise and Growth of Anniston—How Its Prosperous People Live.**

One of the most interesting studies in the history of the development of the South is furnished in the annals of Anniston. This brave city sprang up so suddenly among the mountains of Northwestern Alabama, that when the story of its rise went abroad it was scarcely believed. Those who gave it credence smiled at the ambition which aimed at still greater achievements and predicted that the city would disappear with somewhat of the same magical suddenness which marked its rise. A visit to Anniston now would rebuke the prophets of its failure and would convince the most stubborn skeptic that the brave and hopeful men who laid its foundations built on the rock of permanency.

There is much to be seen, enjoyed and studied in

THIS MAGIC CITY

of the mountains. Its success, its steady growth, and sturdy prosperity are valuable evidence on many questions.

In the first place, nowhere has there been a more convincing demonstration of the mineral wealth of the South, and of the fact that it can be profitably developed by intelligent methods. When Mr. Sam Noble, some fifteen years ago, casting about through that region, dismounted from his buggy, and by the roadside under the shadow of a great shaggy hill picked up a little red lump of soil and crumbled it in his fingers, his keen sagacity foresaw the possibilities which are now accomplished results. But other men were not so skilled to read the story of the roadside, nor so bold to trust to its translation into wealth and beauty and power. The faith of this man, however, never faltered, his courage never failed, and his patience toiled without ceasing. Now it is easy to see that he was right in the brightest of his dreams that this wilderness could be made to blossom as the rose. Within a few feet of the spot where he found the first suggestion of the wealth that lay within those hills hundreds of men are daily digging from the soil the finest iron ore to be found in this country. The process is so simple that it does not suggest the usual associations of a mine. The ore is everywhere in the soil. There is no tunnelling, or delving into depths. Nature left her riches on the surface and they are taken out as simply and as safely as the farmer digs his potatoes. For ten years they have been drawing on this one hillside, and as yet it seems merely scratched as one looks upward to the great slope and the thousands of acres above which are

ALMOST SOLID IRON.

A century of such labor would not begin to impoverish this mighty depository. But it is hardly richer than its sister hills, which form a bulwark about the city. The ore is mined within a few hundred yards of the two great furnaces, whose fires flash and flare through day and night. After being washed at the ore beds, it is conveyed on a railroad to the furnaces, where it is converted into the finest quality of charcoal iron. The supply of charcoal is inexhaustible. For miles around there is a magnificent sweep of heavily timbered lands. The history of iron manufacture at Anniston has been one of phenomenal success. Since its furnaces were built, the iron industry has suffered the severest depressions it has ever known, and the fires have been extinguished in the most favored regions. Anniston has never known what it was to see a cold furnace, and the fame of its fine iron has extended throughout the whole country. In addition to the two furnaces in the city the company own two on the line of the Anniston & Atlantic railroad, a line constructed by them, and penetrating for forty miles the rich mineral and agricultural country which lies to the Northwest. One of these furnaces is at the foot of a mountain. The

ore is mined up on the slope, and is literally SLIDED INTO THE FIRE.

A more perfect arrangement and juxtaposition of resources is not possible.

Though most famous for its fine ores and pig iron, Anniston has several other valuable industries. A cotton factory with 12,000 spindles was completed several years ago, and was profitably operated until last spring, when it was shut down for six months owing to the overstocking of the cotton goods market. It will resume operations on the 1st of October. The car wheel factory has been a success from the start. A car factory is also in profitable operation. The Woodstock Iron Company is now constructing a large rolling mill which will soon be completed, and will be adapted to the manufacture of heavy rolled iron for car axles, etc.

But the great industries of the city do not afford its most pleasing study. That is furnished in the arrangement of the city itself and in the condition of the people who live in it. A better site for a town cannot be found. It is nearly one thousand feet above the sea. Within the hills that shelter it are two gentle slopes coming down on either side to a plane in the center, which has a natural incline of 75 feet in the 1,000. The drainage is therefore perfect. Within half an hour after the hardest rain the streets are firm and dry. They are protected from the attacks of the weather by the best macadam and by a coating of slag from the furnaces which makes a smooth and beautiful roadway. The natural advantages of location have been admirably improved. The city was completely surveyed and laid off before a house was built, then the streets were planted with shade trees, and tunnelled with sewers. Then mansions and cottages were built and made luxuriant or cosy for their occupants.

The sense of the founders of the city is illustrated in the disposition of its different classes of population. In one quarter of the city reside the mechanics, the whites separated from the negro workmen. In another quarter the cotton factory operatives live in the same way. A third division is set apart for the ore miners. The cottages are models of

NEATNESS AND COMFORT.

They are built of the best material, painted and plastered, and furnished with water which comes gushing down from a reservoir that supplies the entire city. The water of Anniston is one of its treasures. It comes from an artesian well and pumped to a great reservoir set so high that six streams can, by the natural pressure, be thrown over the tall chimney at the cotton factory, the loftiest structure in the city. Attached to each cottage is a quarter of an acre which is devoted to flowers and vegetables. The pride of the cottagers in beautifying their premises is remarkable, some of them displaying unusual taste and skill. One who has never seen a crowded manufacturing town in the North or in England, cannot appreciate the comforts of the Anniston mechanics. Compare these pretty cottages, with their ventilation, their vinecovered porches and their blooming gardens, with one of those enormous tenements, where the men, women and children are packed into narrow rooms, shut out from the light and the breeze and shut in with discomfort and disease. The difference can be read in the appearance of the people who are placed in these contrasted conditions. The pale, pathetic faces, with their weary, timid look, so often seen in great manufactories, are unknown in this place where air, and exercise, clean houses, pure water, and wholesome food are afforded to all.

A fine system of public schools is supported by the company for the benefit of the children of its employees. There are neat churches of various denominations. An Episcopal church, built of gray granite and costing about \$30,000, is about complete.

The numerous churches in Anniston give correct suggestions of its morality. It is a prohibition town. There are policemen, but they have little to do. Disturbances are unknown. The people work honestly during work hours, and spend their leisure in social intercourse and in innocent recreations.

THERE ARE NO STRIKES

at Anniston. Of course not. The working classes are well paid and well cared for. They live in homes—not in hives. They are healthy, cheerful, industrious and happy. Sometimes it has been necessary to make a temporary reduction of wages. When the company determines that it must do this the workmen are informed that it is done only because it cannot be avoided. There are no grumblings or sullen looks, for the employes know perfectly well that just so soon as trade revives their wages will be restored. When the cotton factory suspended last spring the operatives were provided with work on the company's farm or in the improvements about the city. Besides, they were allowed to have their cottages free of rent during the time of the suspension.

Rents are very light. Four room cottages are only \$4 a month and six room cottages only \$6. In making these people contented and happy the owners of this superb property have done a better work and reared a nobler monument than when they set their blazing furnaces to melt down the millions of wealth hidden in the hills about them.

THE WOODSTOCK IRON COMPANY is composed of six men, three Tylers and three Nobles. The Tylers are sons of General Tyler, of Charleston, one of the bold railroad pioneers of the South, who, when not twenty-five years old, was the chief engineer and superintendent of the Macon and Western railroad. The old gentleman lived long enough to see Anniston become established and successful and lies buried in the cemetery that covers one of its fairest slopes.

The Nobles are sons of an Englishman, who brought his family to America when his son Samuel was a baby. The other sons were born in Pennsylvania, where Samuel Noble, Sr., engaged in the iron business. The family came to Georgia before the father's death. After the war the Nobles established iron works at Rome, which they still own, but have leased for a number of years.

After discovering the resources of the surrounding country and working out the problem of a possible city in its midst, Mr. Sam Noble, Jr., formed a stock company which purchased 60,000 acres of land and worked the wonders now to be seen where a wilderness stood fifteen years ago. Up to two years ago last spring the city was owned entire by the Woodstock Iron Company. Then it was thrown open. Many lots are now owned by other parties, and there is an invitation to all who choose to come. The Tylers and Nobles have beautiful homes on the Eastern slope of the city surrounded by spacious grounds. From the portico of Mr. Samuel Noble's home,

THE FINEST VIEW

can be had of the city. Its clustered cottages, its handsome business blocks, its numerous church spires and its flaming furnaces present a scene of industry and prosperity. The iron ribbed hills make a sombre background which emphasizes the bright beauty of the city. To the south, there is a glimpse of the luxuriant Choccolocco valley, which stretches out for twenty miles, and yields a rich return to its prosperous farmer folk. To the northward lies another valley, equally rich and fair. Surrounded thus by a superb agricultural country, Anniston has a brisk and varied business. There are scores of handsome retail stores, with excellent stocks. Two wholesale houses do considerable jobbing, and send their drummers to contest with Atlanta, Birmingham and Montgomery for the trade of the neighboring towns.

There are two banks, one of them a national bank. The workmen have surprisingly good accounts with the banks, and receive encouraging interest on their deposits. Anniston supports a daily paper, the *Watchman*, and a weekly, the *Hot Blast*. The latter is edited by Mr. Howard Williams, formerly of Atlanta, who has made it famous throughout that section by his lively editorial work. After enjoying a bird's eye view of the city from Mr. Noble's porch, a glance northward across the clover field where his Jerseys are browsing, reveals an imposing structure on an eminence equal to the point of observation, half a mile distant. That is the

FAMOUS ANNISTON INN.

It has been pronounced the completest hotel in the South, and no man who has not seen it has a right to dispute that claim. It is a graceful specimen of Queen Anne architecture. Its very appearance is an invitation to rest and ease. The wide verandahs extending entirely around the first three floors indicate easy clairs and delicious breezes as far as they can be seen. The approach to the inn is past a twenty-acre lawn, in the center of which a lake is being constructed, and up the graveled walks which wind their way through the luxuriant blue grass to the broad stone stairway at the main entrance. The interior of the inn more than fulfills the expectation awakened by its external attractions. It is simply perfect in all its appointments. The interior finish is of solid wood, polished like satin, and relieved by unique tiles and rich tapestry. The square windows with their stained glass and artistic draperies soften the scene with a peculiarly fine effect. The parlors are magnificently furnished, and offer many tempting devices for the ease of their occupants. The bed rooms are large and perfectly ventilated and from the second to the fifth floor are furnished in equal style and taste. But the most beautiful apartment in this elegant establishment is the dining room. Its walls are of oak, with exquisitely carved ornaments and the finest attainable polish. The glowing arches which span it in three places and the exquisite inlaid work which shines about the windows in various designs are among the many things to admire in this royal room. Its tables are furnished with the clearest crystal, the brightest silver and the most beautiful china. The menu is in keeping with the elegance of the table settings. The entire house is lighted both with incandescent electric lights and with gas. The cost of this palatial establishment was

A QUARTER OF A MILLION

It is kept in every respect up to the metropolitan standard, and is under the superintendence of Mr. Harry Hardell, a well-known Philadelphia hotel man, who is assisted by Mr. Pendleton, of Richmond. From the verandahs of the hotel a superb view is had. The breezes sweeping constantly through the wide arches, and the fluttering curtains make the inn a most tempting summer resort, and it is arranged to be kept warm and cozy in winter, so that whenever the traveler finds shelter beneath its roof he can be comfortable and happy.

The city is at the junction of the Georgia-Pacific and the East Tennessee, Virginia & Georgia Railroads. It is thus a competitive point, and enjoys the same through rates as Atlanta and Montgomery. The Anniston & Atlantic, which now extends forty miles, penetrates one of the richest regions in the South, and will be continued.

LOOKING TO THE FUTURE.

Anniston is enjoying a steady growth. Several fine residences and storehouses are in process of construction, and its mercantile business is rapidly extending. The great enterprises of the Woodstock Iron Company, representing an investment of many millions, are flourishing in spite of the financial depression which, during the past few years, has proven fatal to so many similar establishments.

Anniston is a pleasant and instructive study, not only because of its swift and astonishing rise to its present proportions, but by reason of the many well grounded hopes for its future growth and greatness.—F. H. R. in *Atlanta Constitution*.

THE MARKETS.

OFFICE MANUFACTURERS' RECORD, /
BALTIMORE, Sept. 30, 1885. |

Business has moved along during the week in much the same way as for some time past, there being nothing of particular interest to note. Reports generally are favorable as to the condition of trade, improvement being reported in many lines.

It is rumored that the Baltimore & Ohio and the Pennsylvania Railroad Companies have about reached an agreement regarding the Philadelphia extension of the former, which will stop the fighting between these two companies. These reports are very emphatically denied by the officers of these roads, but there are well-informed business men who think that negotiations of this character are undoubtedly pending. The extension of the Baltimore & Ohio has already cost an immense amount of money, and it will cost probably a good many millions more to complete this new road and to establish suitable depot facilities in Philadelphia. A compromise, satisfactory to both roads, if such could be arranged, it is thought by some, would not prove a bad move. Certain it is that peace between all the railroads and an advance of rates to a profitable basis would cause a decided improvement in business generally.

In manufactured iron the local market shows less activity than at the time of our last issue, but the advance reported in price is still firmly held. We quote as before, viz :

Ref. Bar Iron, 1 to 6x36 to 1.....	1.80@ 2 c
" " 3 to 4½x1½ to 1.....	1.80@ 2 c
" " ¾ to 2, round and square.....	1.80@ 2 c
Hoop Iron, 1½ wide and upward.....	2½@ 2½ c
Band Iron, from ½ to 6 in. wide.....	2½@ 2½ c
Horseshoe Iron.....	2½@ 3 c
Norway Nail Rods.....	5 @ 5½ c
Black Diamond Cast Steel.....	9 @ 10 c
Machinery Steel.....	3½@ 4½ c
Spring Steel.....	3½@ 4 c
Common Horse Nails.....	8 @ 9 c
Railroad Spikes, 5½x9-16.....	2 @ 2½ c
Boiler Tubes.....	57½ off list

The pig iron market is very quiet, with no sales of importance to note. We quote as before, viz :

Baltimore Charcoal Wheel Iron (all Baltimore ore).....	1.80@29 00
Virginia C. B. Charcoal Wheel Iron.....	28 00@29 00
Anthracite, No. 1.....	19 00@20 00
" " 2.....	17 00@18 00
" " 3.....	15 00@16 00
Mottled and White.....	13 00@14 00

HARDWARE.

The volume of trade has been good, and orders continue to come in quite freely. Apparently there is a tendency to rather better prices, and in several lines of goods an advance has already been made.

Nails are scarcer and firmer, with prices strong at \$2.30 and some talk of higher figures. It is difficult to fill the orders received, as stocks are badly broken.

MESSRS. SAMUEL G. B. COOK & CO., Baltimore, are now putting on the market a new coffee mill, which possesses some decided points of superiority over the old mills. Description circulars will be furnished upon application.

THE wire manufacturers, at a meeting in New York last week, decided to advance the prices of wire. The manufacturers of axes also had a meeting with a view to taking concerted action for better prices on their goods.

Philadelphia Iron Market.

PHILADELPHIA, September 28, 1885.

The transactions in steel rails in this market during the past week will foot up 20,000 tons. There are negotiations in hand for larger lots, but buyers dislike to pay \$30. There seems to be less and less probability among rail makers of any disagreement, by which the prices could decline. The rail makers control the situation, and are gratified at the success of their movement. It is even intimated to-day that higher prices will be named for small lots. Railroad builders do not like the combination by which prices have been arbitrarily

advanced, but there is no help for it. An excellent report is made this week by all the wrought iron pipe manufacturers of eastern Pennsylvania. There is some talk of increasing the capacity. It is now evident that the demand for natural gas will continue to increase, and if so the rolling mill capacity must also be expanded. A great deal of business is now being done in skelp iron, and the makers are quite satisfied with the condition of things, and talk of advancing prices for small lots. Quotations are \$2.20 to \$2.30, and these prices are paid. Plate iron has also been booming up a little, and all the mills are in such a position that for emergency lots, they can obtain a little more. Tank iron is in selling at 2.15. Shell, Flange and Fire Box have been strengthened. Angles are selling at 2 cents, tees 2½, and beams and channels at 3 cents, as they always have been. The peculiarity of the market just at present is the large contracts being placed for both crude and finished iron. There are inquiries for some 60,000 tons of steel rails in the market. Old rails are advanced 25 to 50 cents per ton, and buyers are picking up everything that can be had.

Cincinnati Iron Market Report

Specially reported by ROGERS, BROWN & CO., Pig Iron Commission.

CINCINNATI, Sept. 28, 1885.

The week closed better than it began. A feature of the situation is the irregularity of the improvement. In the same day indications at one point show decided firmness and strength, and at another point the mid-summer weakness and apathy. It is remarked by long observers of the iron market that this feature has been prominent in all periods of advancing prices. Sales have been heavy during the week, and at the close some very large offers were refused that a week earlier would likely have been taken. 1,300 tons of No. 1 mill sold at the equal of \$13.50 cash at Cincinnati. It is not noticeable that any one class of work requiring crude iron has especially improved, but there is undoubtedly a gradual and steady improvement in nearly all lines that in the aggregate makes a decidedly better feeling. We correct quotations to cover actual current business:

HOT-BLAST FOUNDRY.

Ohio and Southern Strong Coke No. 1.....	\$16 00@17 00
" " " " No. 2.....	15 00@16 00
" " " " No. 3.....	14 00@15 00
" " " " No. 1.....	16 50@17 00
" " " " No. 2.....	16 00@16 00
Mahoning and Shenango Valley Coke, No. 1.....	16 75@17 75

CHARCOAL IRON.

Hanging Rock, No. 1.....	\$10 00@20 00
" " " " No. 2.....	18 00@19 00
Tennessee and Alabama, No. 1.....	17 50@18 50
" " " " No. 2.....	16 50@17 50
FORGE.	

Strong Neutral Coke.....	\$13 75@--
Mottled " "	12 75@--
Cold Short.....	13 00@--

CAR WHEEL AND MALLEABLE.

Southern Car-Wheel Iron.....	22 00@24 00
Hanging Rock C. B.	25 00@27 00
" " " W. B.	20 00@23 00
Lake Superior Malleable.....	22 00@25 00

Specially reported by E. L. HARPER & CO.

CINCINNATI, Sept. 28, 1885.

There has been no notable change in the market since our last report; the demand is fairly active, and prices are well sustained; Standard No. 1 Foundry is in good request and fully appreciated by the trade. We quote as prices current:

FOUNDRY.

Cash.

Hanging Rock Charcoal, No. 1.....	\$18 50@19 50
" " " " No. 2.....	17 50@18 50
Southern Charcoal	11 50@17 50
" " " " No. 2.....	16 00@16 00
Strong Neutral Coke,	15 50@16 00
" " " " No. 2.....	14 50@15 00
American Scotch,	15 50@16 00

GREY FORGE.

*

Neutral Coke.....	13 00@13 50
Cold Short.....	13 00@13 50

CAR WHEEL AND MALLEABLE.

Hanging Rock, strictly cold blast.....	25 00@25 50
Hanging Rock, strictly warm blast.....	21 00@21 50
" " " Cranberry, N. Carolina Warm Blast.....	22 50@22 75
Amherst and Virginia Warm Blast.....	19 00@20 00
Lake Superior Charcoal, all grades.....	19 00@20 00

Louisville Iron Market.

Specially reported by W. B. BELKNAP & CO., Nails, Wire, Iron, Hardware, Carriage and Wagon Goods.

LOUISVILLE, KY., Sept. 28, 1885.

The market for most hardware is fairly active. Such advances as are established are accepted under a good deal of protest, and accompanied by more or less effort to reduce to "same as last," while thus the burden of business is in nowise rendered lighter,

and still it is not unpleasant to reflect that the goods one looks at on his shelves are worth as much if not more than he paid for them thirty or sixty days ago.

Bar iron.—The Southern mills specially are full of orders, as their production is limited and not too much for tributary markets.

Hoops and bands.—These have recovered somewhat from the extreme depth into which they sank in the early summer, when they were cheaper than ever before, according to the records.

Sheets.—The extreme anxiety of a few weeks ago has vanished, as the mills of the largest capacity are at work.

Nails.—The greatest interest of the trade is now centered in nails. Prices have advanced day by day, and were it not for the realization upon old stocks held for speculation, the purchase of some which date back to last December, the market here would be in a worse condition than it is. Leading sizes, such as 8, 10 and 20, are especially scarce.

Wire.—A genuine advance at last seems to be established on wire. The mills are asking at least 10% more for plain and about 5% for barbed wire.

Ammunition continues to flow into this market via St. Louis, a verification of the old proverb "that the longest way around is often the shortest way there," and leads us to the conclusion that the "A" list is the lowest pronounceable one, but there is nevertheless a silent letter which precedes it in the alphabet of the manufacturers.

Local business is good, and the railroads centering here are getting their full share, in fact some of them are much overcrowded.

Specially reported by GAO, H. HULL & CO., Commission Merchants for the sale of Hot and Cold Blast Pig Iron.

LOUISVILLE, KY., Sept. 28, 1885.

The pig iron market continues to show most favorable indications. The regular brands have been advanced from 25 to 50 cents per ton. Nearly everything below this has been picked up, and considerable sales been made at the advance. There is more disposition to buy than on the part of furnaces to sell. Some speculative demand has also sprung up. We quote for cash in round lots as below:

PIG IRON.

Southern Coke, No. 1 Foundry.....	\$16 00@17 00
" " " " No. 2.....	15 00@16 00
" " " " No. 3.....	14 00@15 00
" " " " No. 1.....	16 50@17 00
No. 1.....	16 75@17 75
CHARGED.	
Southern Coke, No. 1 Foundry.....	15 75@16 50
" " " " Charcl., " "	10 00@12 00
Southern Coke, No. 1 Foundry.....	17 50@18 50
Silver Gray, different grades.....	14 00@15 00
Southern Coke, No. 1 Mill, Neutral.....	13 50@13 75
" " " " 1 " " " " Cold Short.....	12 75@13 25
Southern Coke, No. 1 Mill.....	16 00@17 50
White and Mottled, different grades.....	13 00@12 25
Southern Car Wheel, standard brands.....	23 00@24 00
" " " " other brands.....	18 00@22 00
Hanging Rock Cold Blast.....	23 00@24 00
" " " " Warm "	18 00@20 00

Chattanooga Iron Market.

Specially reported by LOWE & TUCKER, Brokers and Commission.

CHATTANOOGA, TENN., Sept. 28, 1885.

The demand for pig iron continues unabated, and prices remain firm. Foundry irons are scarce, and no difficulty is experienced in getting full figures. The weather has turned cool, and the gathering of the corn and cotton crop is now in full blast. Reports from the cotton districts state that the rains have damaged the crop to some extent, and also that the labor will be inadequate to gather all the crop. Hands that are willing to work will have no difficulty in realizing from \$2 to \$4 per day for their labor. Until the crops are all gathered farmers will have little time to think of anything else; and merchants must expect some falling off in their business for the next month or six weeks. We quote:

No. 1 Foundry.....	\$14 50@15 50
No. 2 Foundry.....	13 50@14 50
American Scotch.....	13 50@14 00
Gray Forge.....	12 00@13 00
Car-Wheel Iron.....	22 00@24 00
Ores, Red and Brown.....	1 50@2 25
Furnace Coke.....	2 00@2 50
Nails, car-load lots, 30 days.....	—@2 25
Bar Iron, per 100 lb.....	—@1 55
Old Rails.....	—@16 00
Old Wheels.....	—@12 50

Wrought Scrap, No. 1.....	—@55
" " " " No. 2.....	—@40
Cast Scrap.....	—@—
Railroad Spikes.....	—@1 55
Railroad spikes.....	—@1 50
Light Steel Rails, long ton.....	38 00@45 00
Barb wire—Cambria link.....	5 @ 5½
Barbed wire—four point galvanized.....	6 @ —
Barb ware.....	4½@ 5

List of Patents.

St. Louis Iron Market.

Specially reported by W. H. SHIELDS, Pig Iron and Iron Ore, No. 305 Olive Street.

ST. LOUIS, Sept. 28, 1885.

The condition of the market has not changed since last report. Buyers and sellers have come to the conclusion that there will be no boom. There is no quotable advance here in standard brands. The demand for old rails, both iron and steel, is good. We quote:

HOT-BLAST CHARCOAL.	
Missouri	\$15 00@16 00
Southern	16 75@17 25
Ohio	—@—
COKE AND COAL.	
Missouri	14 00@16 00
Southern	15 00@17 25
American Scotch	16 00@19 00
MILL IRONS.	
Missouri	14 00@14 50
Southern	13 50@14 00
CAR-WHEEL AND MALLEABLE IRON.	
Southern	20 00@24 00
Lake Superior	20 00@23 00
MISCELLANEOUS.	
Old Wheels	14 00@14 50
Old Rails	16 75@17 25
Old Rails, steel	25 00@25 25
Wrought Scrap	55@55
Cast Scrap	45@55
Connellsville Coke, East St. Louis	—@—
Iron, par.	5 30

Literary Notices.

BIBLE students will be interested in the announcement of Messrs. Cassell & Co., of a "Hanly Commentary on the Old Testament," edited by Charles John Ellicott, D. D., Lord Bishop of Gloucester and Bristol. The work is to be issued in separate volumes, each volume written by a different writer. The three now nearly ready are "Genesis," with commentary by Rev. R. Payne Smith, D. D., Dean of Canterbury, with an introduction by Dean Plumptre; "Numbers," with commentary by the editor, and "Leviticus," by Rev. C. D. Ginsburg, L. L. D. The volumes are of handy size, printed in large, clear type, on good paper.

A MOST important book on Cassell & Company's list is "The Story of the Heavens," by Robert Stowell Ball, L. L. D., Fellow of the Royal Society of London, etc., etc. The book, although on a scientific subject, is written in a popular manner, and is profusely illustrated with plain and colored plates of exceptional quality. The powerful apparatus of the last decade makes it possible to take photographs of the moon and stars that are simply marvelous in the vividness of their reproduction.

MRS. ALICE WELLINGTON ROLLINS, one of the most charming magazine writers of the day, has written a little book, which Messrs. Cassell & Co. will soon publish, called "The Story of a Ranch." It is a true story, the outcome of the author's own experience on a Kansas sheep ranch, and it is as fresh and bracing as a prairie breeze. There is a good deal of information mixed in with picturesque descriptions, and the result is a book that will serve the double purpose of entertainment and instruction.

MR. EDMUND C. PECHIN, M. E., has connected himself with the Iron Trade Review, of Cleveland, as associate editor and special contributor upon metallurgical topics, the design of the managers being to make this journal a recognized authority upon the practical and commercial aspects of iron and steel making. As an active member of the American Institute of Mining Engineers, a former blast furnace manager, and a ready, and instructive writer upon practical metallurgy, Mr. Pechin is well and favorably known throughout the country, and the line of work laid out by him promises much of interest and value to those engaged in the mining of the raw materials and their conversion into the various forms of the finished product.

THE Lechner Manufacturing Company, Columbus, Ohio, have issued a circular containing letters of commendation from users of the Legg Coal Mining Machines and Rotary Power Coal Drills.

THE Knowles Steam Pump Works have issued a revised catalogue of their improved pumping machinery, illustrating and describing the various styles of pumps made, and the various uses to which they can be put. The manufacturers say:

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TRADE NOTES.

A New and Pretty Hotel.

The Griffin House is the name of an elegant new hotel in Detroit, Mich., only thrown open to the public September 1st. It is centrally located, opposite the Michigan Central Depot, and near the river, making it the most desirable hotel for commercial men and tourists in the city. It is a model of architectural beauty within and without; elegantly fitted and furnished with the richest and

most modern appointments. Much of the furniture is rosewood and mahogany, and the windows large French plate and stained-glass, and the walls are handsomely frescoed. The office, billiard and sample rooms, barber shop, ticket office, etc., occupy ground floor. In the dining-room the table and service are unsurpassed, and there a bevy of pretty waiter-girls glide noiselessly about, serving one in that dainty manner that would delight either the sorest dyspeptic or an epicure. A trip through the kitchen and store-rooms reveals order and cleanliness extraordinary. The rooms, single and *en suite*, are large and airy, with fine furniture and luxurious beds.

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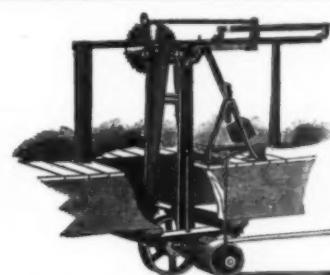
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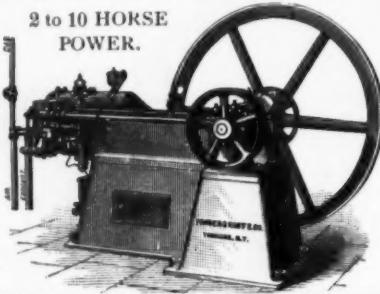
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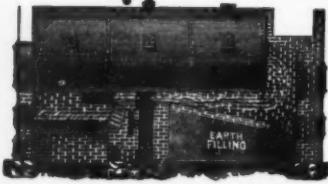


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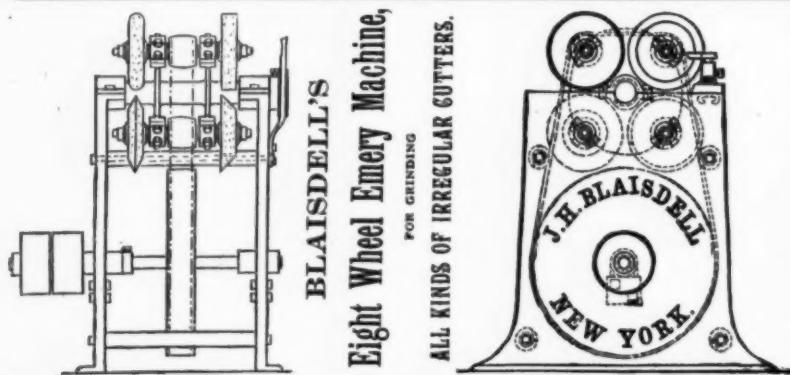
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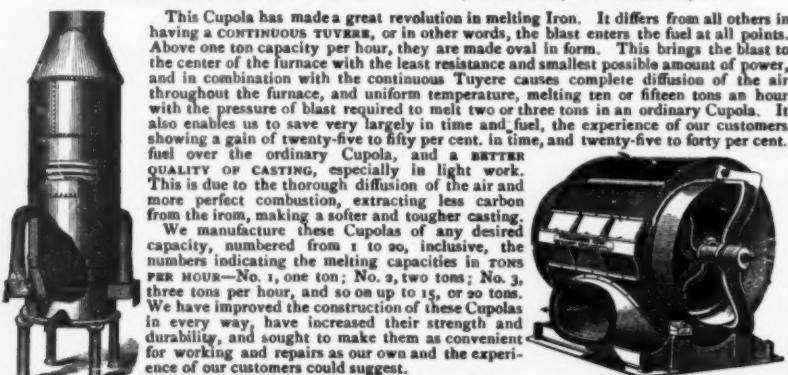
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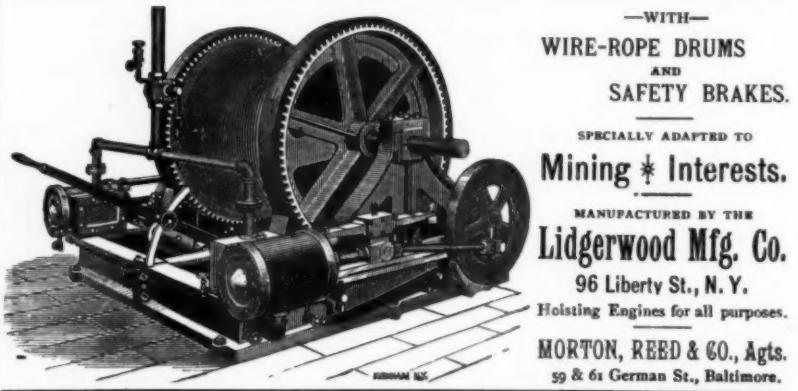
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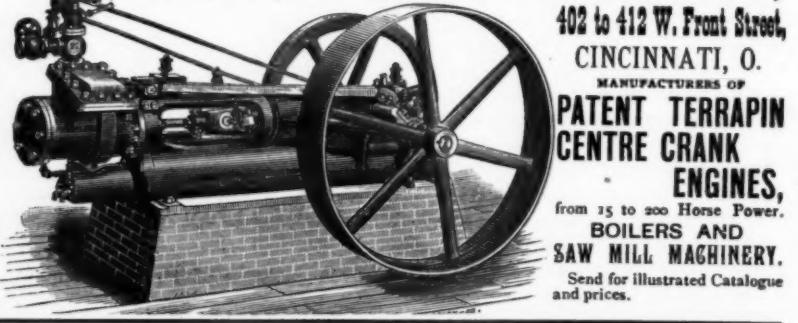
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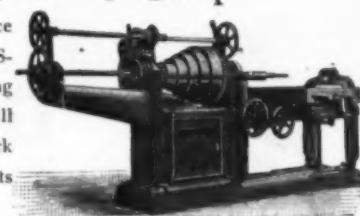
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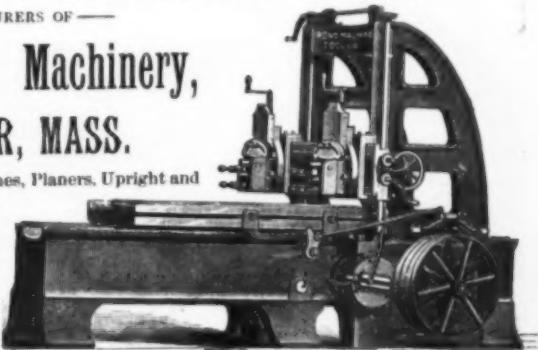
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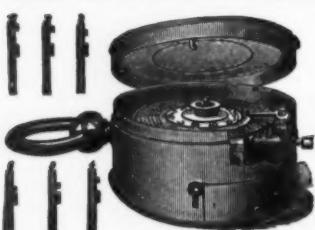
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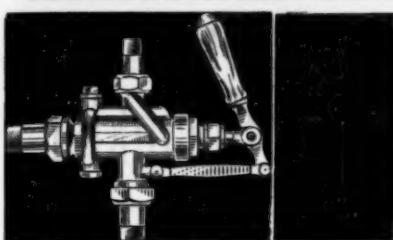
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Patent Peg, Plain Top.....	\$.10 per gross—dis 40&10 %
Patent Peg, Leather Top.....	\$.12 per gross—dis 40&10 %
	AWLS, BRAD SETS, &c.
Awls, Sewing, Common.....	.75c. to \$1
Awls, Shouldered Peg.....	.75c. to \$1
Awls, Patent Peg.....	.90c. to \$1.50
Awls, Shouldered Brad, \$1 gross \$2.70—dis 25&10 %	
Awis, Handled Brad.....	\$.75 per gross—dis 25&10 %
Brad Sets, Aiken's.....	\$1 doz, \$12—dis 45&10 %
Brad Sets, No. 42, \$10.50; No. 43, \$12.50....	dis 70 %
Brad Sets, Stanley's Exc. No. 1, \$9.60, dis 30&10 %	
Brad Sets, Stanley's Exc. No. 2, \$4.80, dis 30&10 %	
Brad Sets, Stanley's Exc. No. 3, \$7.80, dis 30&10 %	
	AXES.
Collins & Co.....	\$.75, beveled, \$.77.75
Cohoes Mfg. Co.....	\$.75, beveled, \$.77.75
Lippincott or Mann's.....	
Single Bit, 4 1/2 to 5 1/2 and under.....	\$1 doz, \$.65 net
Single Bit, 4 1/2 to 6 and over.....	\$1 doz, \$.70 net
Single Bit, beveled.....	.50c. doz, advance
Double Bit, 4 1/2 to 5 1/2 and under.....	\$1 doz, \$.12.00 net
Double Bit, 4 1/2 to 6 and over.....	\$1 doz, \$.13.00 net
Double Bit, beveled.....	\$.11.00 per doz, advance
Second quality Axes.....	.50 cts. less than above
	AXLES.
Sheldon & Co., iron.....	.55% off
" " " steel.....	.55% off
	AXLE GREASE—Frasier's.
	BALANCES.
Spring Balances.....	dis 40&10 %
	BELLS.
Hand, Light Brass.....	dis 75&10 %
Hand, White Metal.....	dis 10 %
Hand, Silver Chime.....	dis 20&10 %
Hand, Globe (Cone's Patent).....	dis 25&10 %
Gong, Abbe's.....	dis 20&10 %
Gong, Yankee.....	dis 30&10 %
Gong, Barton's.....	dis 30&10 %
Leon Reading.....	dis 25&10&10 %
Pull, Brook's.....	dis 50&10 %
Crank, Taylor's.....	dis 25&10 %
Lever, Sargent's.....	dis 55&10 %
Bloomfield.....	dis 20 %
Lever, R. & E. M. Co's.....	dis 45&10&10 %
Call.....	dis 25 %
Cow, Common Wrought.....	dis 55&10 %
Cow, Western, Sargent's List.....	dis 55&10 %
Cow, Kentucky, Sargent's List.....	dis 55&10 %
Cow, Moore's or Dodge's, Genuine Ky., new list:	
Nos. 1 1/2 2 3 5 5 6 Hog	.70 dis. 70
\$12 \$10 \$10 \$8 \$7 \$4 \$3.50 \$2.50 \$5	
Cow, Texas Star.....	dis 40 %
	BELLOWS.
Blacksmith's Common.....	dis 50&10 %
Molder's.....	dis 25 %
Hand Bellows.....	dis 25 %
	BLIND FASTENERS.
Francis.....	dis 20 %
Mackrell's.....	\$1 doz pairs \$1.00, dis 10 %
Van Sand's Screw Pattern.....	\$1 gross, net
Van Sand's Old Pattern, 1 1/2, 18; 1 1/2, 8.50 \$1 gro. net	
Merriman's.....	new list, net
Zimmerman's, 10 1/2 in.....	\$1 gross \$3.00
Zimmerman's, 9 in.....	\$1 gross \$3.00
	BLIND STAPLES.
Barbed, 1/2 in. and larger.....	\$1 1/2c net
Barbed, 3/8 in.....	\$1 1/3c net
	BLOCKS.
Bagnall & Loud.....	dis 30%
	BOLTS.
Cast Iron Barrel Shutter, &c.....	dis 55&10 %
Cast Iron Chain (Sargent's list).....	dis 60&10 %
Wrought Barred.....	dis 55&10 %
Wrought Square.....	dis 55&10 %
Wrt. Shutter, all Iron, Stanley's list.....	dis 50&10 %
Wrt. Shutter, Brass Knob, Stanley's list.....	dis 50&10 %
Wrought Shutter, Sargent's list.....	dis 55&10 %
Wrought Sunk Flush, Sargent's.....	dis 65&10&10 %
Wrought Sunk Flush, Stanley's.....	dis 40&10 %
Wrought B. K. Flush, Stanley's.....	dis 50&10 %
Carriage and Tire, Common, new list.....	dis 80 %
Carriage and Tire, Philadelphia Pattern.....	dis 80 %
Carriage Bolts, Clarke's.....	dis 75&10 %
Norway.....	dis 75&10 %
R. B. & W. Carriage (old list).....	dis 65 %
Tire, American Screw Co's, Phila.....	dis 82 1/2 %
Tire, " Bay State".....	dis 70 % new list
Magic Philadelphia Tire Bolt.....	dis 82 1/2% & 5 %
stove.....	dis 70 %
Plow.....	dis 60&10 %
Machine.....	dis 75&10 %
Bolt Ends and Lag Screws.....	dis 75&10 %
	BORAX.
15c \$10 net.	
	BRACES.
Q. S. Backus.....	dis 50 %
Barber's.....	dis 40&8 1/2 %
Spofford's Patent.....	dis 50&8 1/2 %
Ives' Patent Braces.....	dis 50 %
Common Ball (American).....	dis 55 %
Amidon's.....	dis 50 %
	BOXING MACHINES—WITHOUT AUGERS.
Sweet & Clark upright, 3.60 angular.....	4-40 net
Lawrence 3.00.....	3.50 net
Hubbard " 3.00 "	3.30 net
Phillips, with Augers.....	7.00 7.50—net
	BRACKETS.
Sheaf, plain.....	dis 50&10 %
Sheaf, fancy.....	dis 55&10 %



Buckeye Injectors, —Lubricators, Wrenches, Etc.—

For circu-
lars address
CROSBY BROS. & CO.
242 Lake St., Chicago, Ills.

J. H. RATTERMAN, President
FRED BUSSE, Sec'y & Treas'r.
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The U.S. Varnish Co.

CINCINNATI, - - - OHIO.

258 and 260 Colerain Avenue.
CHICAGO BRANCH, - - No. 47 STATE STREET.
Mention this paper.

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AMENDED AND PROSECUTED, IN-
VENTORS DRAWINGS MADE.
NO MODEL REQUIRED.

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For Sale

- 1 50 Horse-Power Engine and Boiler, with Fittings.
- 3 Spoke Lathes (made by Gleason, Philadelphia.)
- About 40 Pulleys.
- 80 feet Shafting and Couplings for same.
- Saw Arbors, Boxes, a Facer, Tenoner and Throating Machine for the manufacture of Spokes.
- 1 (new) 25 horse-power engine, boiler and pump; never been used.
- A bargain to any one wishing to buy either as a speculation or for use.

Address **E. T. ROBARDS, Sec'y,**
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—THE—
Sigourney Drill,
AND
10 inch Universal Hand Lathe
MANUFACTURED BY
The Sigourney Tool Co
HARTFORD, CONN.
Special Tools and
Light Machinery
Built by the Day or Contract.
Send for Circulars.
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The Bay Line comprises the New and Elegant Steamers
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All the Comforts and Luxuries of a First-Class Hotel are afforded the Traveler. Spacious and Elegant Saloons and Staterooms, furnished with an especial view to comfort. Unsurpassed Cuisine, which is made a specialty with this Line. Elegant service and courteous attention. Steamers leave Baltimore daily except Sundays at 9 P.M.

At Old Point Comfort is located the SPLENDID HYGEIA HOTEL, a Delightful Resort at all Seasons of the Year. For Tickets and Information, apply at Company's office.

157 W. BALTIMORE ST., BALTIMORE,
Or on Board of Steamers.
D. J. HILL, Superintendent.
E. BROWN, General Ticket Agent.

Business Chances.

For the purpose of making the MANUFACTURERS' RECORD a still more valuable medium of communication between its readers North and South, we will publish, FREE OF CHARGE, short advertisements, not exceeding 40 words, from those in the South who have good business openings that they wish to bring to public notice, capital wanted for industrial enterprises, &c., &c.; while readers in other sections who desire to engage in manufactures at the South are also invited to use these columns, without cost, either in seeking information regarding the advantages and special claims of different localities, or for asking about good openings for men and money. This department is also free for Southern manufacturers who wish to advertise for mill managers superintendents, engineers, &c.

In corresponding with any of these advertisers please mention the Baltimore Manufacturers' Record.

WANTED.—To a competent iron fence man having \$2,000 or \$3,000 to invest. We offer a rare chance. Address, Box 102, Chattanooga, Tenn.

BEING interested in quarrying fine Tennessee marble, I would like to correspond with some one having experience in sawing marble and with capital to invest, with a view to erecting a mill in connection with quarry. Address P. O. Box 72, Rogersville, Tenn.

ATLANTA.—Wanted party with \$3,000 to \$5,000 to join practical man in starting soap factory in this growing city; one who can sell goods and manage outside business. This is a fine opening. Address L. E. Boswell, Atlanta, Ga.

PARTNER WANTED to take an interest in a profitable manufacturing business in Middle Georgia. To a man with \$5,000 or more seeking investment and employment or investment alone, this is a fine opportunity. Address F. S. C., Macon, Ga.

PARTNER WANTED with \$5,000 to start a stave factory by parties representing over \$10,000 in real estate and having ample experience. A large profit can be made. Will guarantee the investment and 8% per annum. Address Enterprise, Lock Box 27, Warrenton, Va.

WANTED—A position in a sash and blind factory as foreman or master-workman; 12 years' experience; well up in all kinds of wood-working; can give best recommendations. W. T. L., care MANUFACTURERS' RECORD.

TO SOAP MANUFACTURERS.—The location of a soap manufactory is desired in a live and growing Southern city of 10,000 inhabitants, situated at the junction of two trunk lines of railroad, in the best section of the South, entirely free from malaria or epidemics. To a thoroughly practical man competent to manage the business and able to furnish half the capital required for a respectable establishment, inducements will be offered. Address Oil Mill, care MANUFACTURERS' RECORD, Baltimore, Md.

WANTED.—A party with \$3,000 to \$5,000 capital and a knowledge of manufacturing agricultural implements; business already established; one of the best locations; a good chance for a safe and profitable investment; the machines are covered by five patents, and well tested by 3 years actual use, and an increasing demand. Investigation solicited. For particulars, address A. C. Hendricks, Shenandoah Junction, W. Va.

SITUATION WANTED.—A young man having some education and experience in mechanical engineering, desires location South. Resigned position North to recover health impaired by severe Northern winters. Prefers subordinate position, as assistant to foreman or superintendent, with prospect of advancing. Address Engineer, care MANUFACTURERS' RECORD.

WANTED—By a young man, a position as superintendent of a cotton-seed oil mill. Will take a mill that is leaving 15 per cent. of oil in the cake, and guarantee to reduce it to 8 or 10 per cent. Address C. C. "New South," Columbus, Miss.

WANTED—By a young man—double-entry book-keeper, good and rapid penman—a situation where bookkeeping, writing or mathematics are involved; good credentials. Will give careful and undivided attention to business. Address A., care MANUFACTURERS' RECORD.

A NEW manufacturing enterprise in the South wants more capital to provide facilities to meet increasing business. Splendid field; location all that could be desired; a fine opportunity for investment. Address D. S., care MANUFACTURERS' RECORD.

HAVING the requisite practical and some business experience, and an acquaintance that would be useful, I would like to engage with some cotton mill to take charge. Address A. E., care of MANUFACTURERS' RECORD.

A SCOTCHMAN of 20 years experience in the cotton and woollen manufacturing trade, is open for engagement as manager, or in any capacity where his experience and practical knowledge would be required. Is thoroughly posted in all details. Address W. M., care MANUFACTURERS' RECORD.

WANTED—A practical bucket maker. To the right sort of a man who has had experience in working cedar and white pine, and can run a shop successfully, a good inducement will be offered. Barker Manufacturing Company, Knoxville, Tenn.

WANTED—By an energetic, live young man a partner with \$10,000 to \$20,000, to engage in the tobacco business in Piedmont, North Carolina. Best of reference given, showing him qualified to handle business. Address Tobacco, care MANUFACTURERS' RECORD.

WANTED by a qualified mining engineer a position as superintendent or manager of a mine in the South. Accurate mine surveys made and ventilation attended to. Address Geo. D. Stonestreet, Mining Engineer, Box 397, Birmingham, Ala.

I WANT a foreman for a furniture factory. J. H. Taylor, Greenville, S. C.

FOR SALE.—I offer for sale a half interest in pressed brick works making 1,000,000 pressed brick a month, and the management of the works to the buyer. The best paying property in North Texas. Demand for the brick unlimited. Address J. B., care MANUFACTURERS' RECORD.

Get the Best at First.

The Holyoke Machine Company, of Worcester, Massachusetts, advertise in this issue their well-known Hercules Water Wheel. This wheel has many points of merit that strongly commend it to the attention of those who use water power. The most thorough tests have demonstrated its many good qualities. In Holyoke it is the standard water wheel, the aggregate horse power of the Hercules wheels in operation there being greater than that of all other wheels combined. These wheels are very popular in the South as well as in the North, having been in use for many years in a large number of Southern mills. There are four of the Hercules wheels now in operation in the big cotton mills of the Eagle & Phenix Manufacturing Co., Columbus, Ga., and Mr. John Hill, of that company, in writing, Feb. 23, 1885, to the Holyoke Machine Co., said: "Within the past four years I have ordered four 'Hercules' wheels, all of which have given the purchasers entire satisfaction. Three of the wheels are on regular duty in the Eagle & Phenix Mills. The first wheel ordered did so well that a 'Hercules' wheel has been added each time a new wheel was wanted. In the Eagle & Phenix Mills I supervise twenty water wheels of six different styles. The 'Hercules' is by far the most durable and best made wheel in use here, and, in fact, I know of no wheel its equal mechanically. It is all that can be desired in economy of water. In fact, it is a strictly first-class wheel in every way, and the wheel to buy, use and depend upon."

That is a pretty strong letter, but it is only a sample of letters received by the manufacturers of this wheel. Among the recent shipment of wheels have been two—one a 34-inch and one of 60-inch—to a Georgia cotton mill. Two Hercules wheels are being put in at Natick Cotton Mill, and one at the Arctic Mill of B. B. & R. Knight near Providence. This will make eleven wheels furnished to this well-known firm, one of the most prominent in the manufacturing line in New England. Hercules wheels are sold in England, Ireland and Scotland, and on the Continent, a cable order having been received only a few days ago for one to go to France. The manufacturers say: "The Hercules gives the most power for its size and the highest average percentage from full to one-half-gate of any wheel ever made." Their advice to all users of water wheels is to "get the best at first." If you are interested in water wheels, if you want a new wheel or a larger wheel, or a better wheel than you are using, write to the Holyoke Machine Co., Worcester, Mass., for catalogue No. 3.

Managers of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

Factory For Sale or Lease.

The Atlanta Cotton Mill Supply Factory, completely equipped with the latest improved machinery for doing all kinds of wood, iron and foundry work, is for sale or lease. It is especially fitted to turn out all classes of cotton mill supplies, including looms.

This factory is situated in Atlanta, Ga., having a frontage of nearly 400 feet on the W. and A. R. R. Terms easy. Address

AARON HAAN,
36 Alabama St., Atlanta, Ga.

FOR SALE.

All the machinery complete for a first-class Circular SAW MILL, capacity 75 M feet per day. This machinery has not been used more than one year, is of the most improved patterns and in perfect order. Apply to

C. A. CHISOLM,
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ENGINEERS and STEAM URERS ATTENTION! The celebrated Cyclone Steam Flue Cleaners may be had at the Supply House of THOS. C. BASSHOR & CO., 28 Light Street, Baltimore, Md.

FOR SALE.

A Portable or Horse-Power Engine and Saw Mill, with large lot of timber, if desired, within 6 miles of Farmville, and 3 from railroad. Also one 8 Horse-Power Portable Engine, on skids, Horizontal Boiler, Talbot's make. It is now mounted on truck and used for threshing wheat. Address

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Farmville, Virginia.

FOR SALE.

A Cotton Seed Oil Mill situated in the heart of the cotton region of Texas. The machinery is comparatively new and is in first-class condition. Railroad side track runs to the doors. Any one desiring to invest in this class of property should address—

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Established 1867.

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LATHES,

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Double Chain Screw

Pulley Blocks.

Unrivalled for Durability,
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Patent Double Screw

Quick-Lift Hoists,

with brake for quick and easy

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• Circulators furnished.

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St., Boston; W. H. RICKEY,

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OVER 6,000 IN USE.

Bates' Hand Elevators.



Adapted for Warehouses, Stores, Factories, Hotels, Public Institutions, and every place where merchandise, &c., is transferred from one story to another.

JAMES BATES, Patentee,
Nos. 1 3 & 5 President Street. BALTIMORE.

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HAB NOW BEEN
Under its present successful management for
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And during that time its business has more than trebled, while its facilities have proportionately increased.

No expense is considered too great in obtaining and applying to the conduct of the business all possible improvements. With its present system for obtaining and promulgating information, this Agency is justly regarded by its patrons as authority on all matters affecting commercial credit. Its ramifications are greater and its business larger than any similar organization in the world conducted in one interest and under one management.

You are respectfully invited to investigate, and if in need of an Agency, to test its ability to serve you.

CHAN. F. CLARK, President.

Baltimore Office,—American Building.

H. KERSHAW, Supt.



TOOLS for Machinists, Amateurs, Jewelers, Model Makers, Blacksmiths, Carpenters, Coachmakers, etc.

Send 10 cts. for new Metal Worker's Catalogue, 300 Pages.

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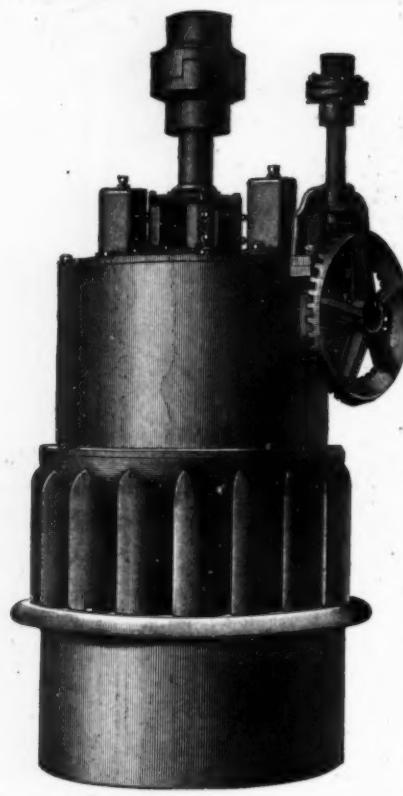
Architectural Iron Works.

J. P. WALTON & CO.

CINCINNATI, OHIO.

Manufacturers of all kinds of IRON WORK for building purposes.—Store Fronts, Columns, Lintels, Joists, Stairs, Railing, Roof-Trusses, Doors, Shutters, etc. Jail work a specialty. Write us for catalogues.

THE "HERCULES"



→GET THE BEST.←

A good Water Wheel increases the value of your whole plant. Get the best at first and avoid the expense and delay of changing wheels. A good wheel will serve you well for twenty years. The best is the cheapest—it does more work, lasts longer, and costs no more for gears and setting than a common wheel. The HERCULES gives the most power for its size, and the highest average percentage from full to one-half gate, of any wheel ever made.

SEND FOR CATALOGUE No. 3.

HOLYOKE MACHINE CO., WORCESTER, MASS.

Wheels Now in Use in Holyoke, February 1st, 1885.

Name of Wheel.	Number.	Horse-Power Furnished.
Hercules.....	53	10,576
Boyden.....	38	5,398
American.....	10	825
Tyler.....	10	311
Hunt, Waite & Flint.....	7	375
Rifdon.....	6	440
Jonval.....	4	655
Swain.....	1	160
New American.....	1	65
Aouston.....	1	75
Victor.....	2	150
Total.....	133	19,030

EAGLE & PHENIX MANUFACTURING CO.,

COLUMBUS, GA., Feb. 25, 1885.

HOLYOKE MACHINE CO., STEPHEN HOLMAN, Treas.:

Dear Sirs—Within the past four years I have ordered four "Hercules" wheels, all of which have given the purchasers entire satisfaction. Three of the wheels are on regular duty in the Eagle & Phenix Mills. The first wheel ordered did so well that a "Hercules" wheel has been added each time a new wheel was wanted. In Eagle & Phenix Mills I supervise twenty water wheels of six different styles. The "Hercules" is by far the most durable and best made wheel in use here, and, in fact, I know of no wheel its equal, mechanically. It is all that can be desired in economy of water. In fact, it is a strictly first-class wheel in every way, and the wheel to buy, use and depend upon. Yours truly, JOHN HILL.

CONNECTICUT RIVER PULP MILL.,

HOLYOKE MACHINE CO.: HOLYOKE MASS., November 24, 1884.

We are now using 22 "Hercules" wheels, under heads from 12 to 40 feet, and they have always given satisfaction. We have used a variety of Turbines, but where economy in the use of water is required nothing equals the "Hercules." In every respect they are first class.

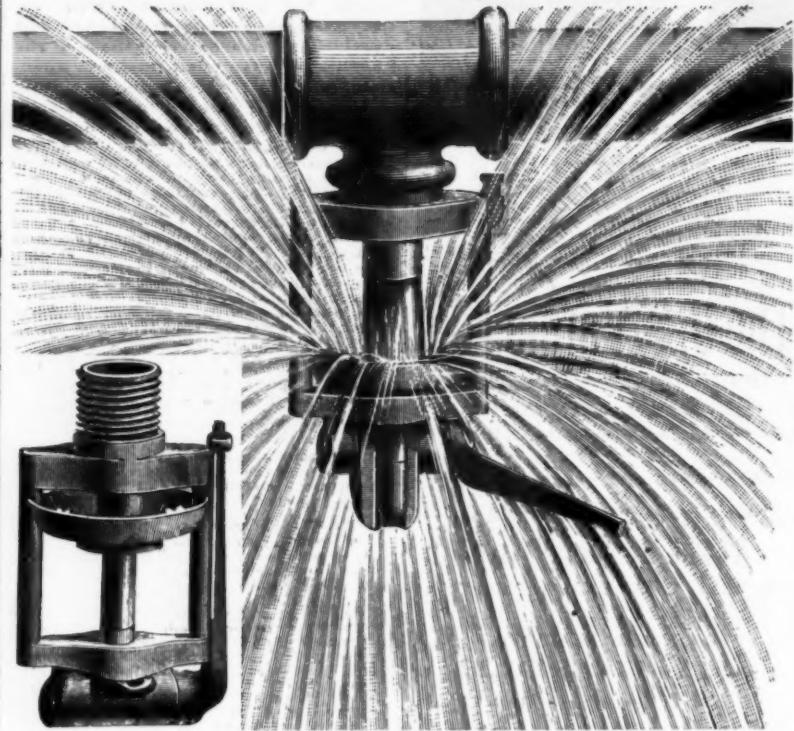
D. H. & J. C. NEWTON.

GEORGE R. DICKINSON PAPER CO.,

HOLYOKE MACHINE CO.: HOLYOKE, MASS., December 17, 1884.

Gentlemen—We started our mill with three "Hercules" wheels. We raise the gates Monday morning and close them Saturday night. They have never cost us a cent for repairs nor caused us a moment's delay. We want nothing better. Yours very truly, GEORGE R. DICKINSON, Treas.

WALWORTH Strong Sensitive Link Sprinkler.



THE WALWORTH STRONG SENSITIVE LINK SPRINKLER, for the extinguishment of fires, having for its most salient points

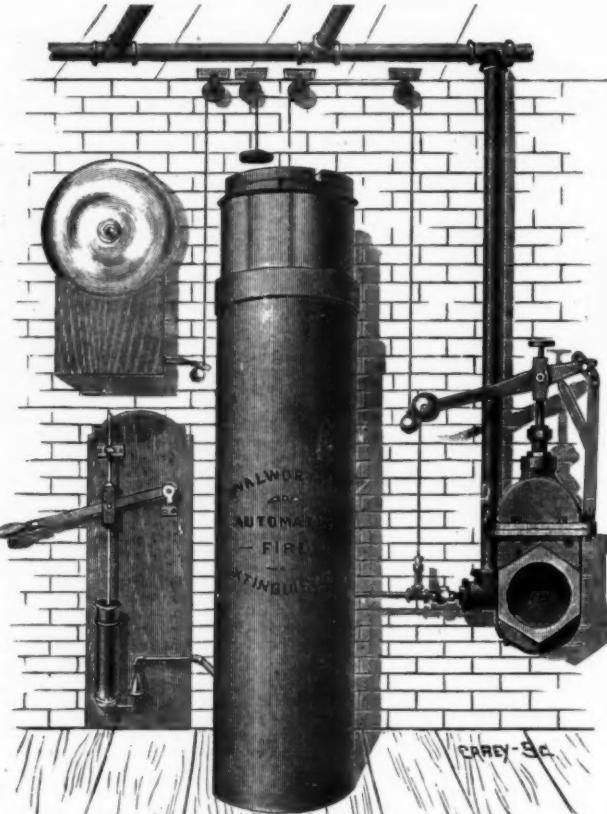
STRENGTH, SIMPLICITY AND RELIABILITY, has forced its way to the front solely because it has been proved to be the best Sprinkler made. No Sprinkler ever introduced has shown such good results. In no instance has it failed to act when needed, notwithstanding the fact that it has been severely tested in many instances.

We give below the account of a remarkable fire:

MESSRS. WALWORTH MANUFACTURING CO.:

GENTLEMEN—On Sunday evening fire was discovered in our engine room, and in five minutes had worked its way through a belt box to the fourth floor. For a few minutes it looked as if the place must go, but the automatic heads on each floor near the fire went off and quickly extinguished it without assistance from hose or anything else. Had there been sprinklers in the engine room, fire could not have got beyond it, and we will be pleased to have you put them in this room at your earliest convenience. After the fire was out we shut the water off at tanks, put on new rings at the eleven heads which had gone off, and with water on started in full next morning as though nothing unusual had taken place.

WALWORTH Automatic FIRE Extinguisher. DRY SYSTEM.



By this system the pipes are filled with compressed air under a pressure of one pound to the square inch. Attached to the pipes is an Airometer, the inner tank having a weight upon it of 100 pounds. This tank and weight is raised by the compressed air, and as soon as a Sprinkler is opened the pressure, being released, allows the tank and weight to fall, thus opening a valve and either starting the pump or releasing the water from tank or street mains. It is so arranged that an alarm will sound just before the valve is to be opened, notifying that there is a fire, or that more air must be pumped. The entire supply of air can be produced by a few strokes of the air pump. Manufactured by the

Walworth Manufacturing Co.
No. 16 Oliver Street, BOSTON.

JEWELL BELTING CO.

SUCCESSORS TO

P. JEWELL & SONS.



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LEATHER BELTING

—AND—

LACE LEATHER,

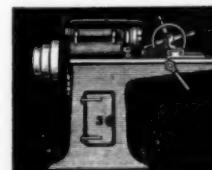
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Having a Stock of Repairs for over 12,000 different Stoves, can we not make it to your advantage to trade with us?

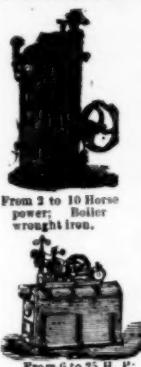
PROMPT SHIPMENTS AND SATISFACTION GUARANTEED.

The W. C. Metzner Stove Repair Co.
125 & 127 W. Randolph Street, - - CHICAGO.
CATALOGUE SENT FREE.



ADAMS & PRICE MACHINERY CO.
SOLE MANUFACTURERS OF THE
NEW AND IMPROVED PRINCIPLE
ADAMS' PATENT AUTOMATIC
BOLT AND NUT THREADING MACHINES
35 to 41 INDIANA ST. CHICAGO.
SEND FOR ILLUSTRATED & DESCRIPTIVE CATALOGUE.

COMMON SENSE ENGINES.

From 2 to 10 Horse power.
Boiler wrought iron.Best CORN MILL in the World
for plantation and farm purposes.Stationary Engines from 6 to 100 Horse Power
Portable from 6 to 25 H.P.
COMMON SENSE ENGINE CO.,
Springfield, Ohio.

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MANUFACTURERS OF

Marble Monuments

Tombs, Altars, Counters,
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Estimates and Drawings Free.

Many Steam Fitters and Machinists are of the opinion that the

POWELL PATENT REGRINDING "STAR"

And Crescent Globe Valves

are the very best in use. The Star Valves are also made extra heavy for Steam Boat use. Every Valve warranted for one year if handled and used with ordinary care.

**POWELL'S PATENT
SIGHT-FEED**

LUBRICATORS

and Glass Engine Cups insure a great saving in oil. Specifications should call for

THE
Powell Star Valves.

WM. POWELL & CO., Manufacturers,
50, 52 and 54 Plum Street, Cincinnati, Ohio.
Sold by all the dealers in Steam Fitters' Supplies
throughout the Southern States.

Trade: Send for cuts: Gratis.
Send for circulars: Gratis.
Send 10 cents for Book of Rules.

THE LIGOWSKY

Clay Pigeon Co.

Box 1,292,
Cincinnati, Ohio.



E. W. BLISS,

—MANUFACTURER OF—

Presses, Dies, —AND— SPECIAL MACHINERY

FOR WORKING SHEET METAL.

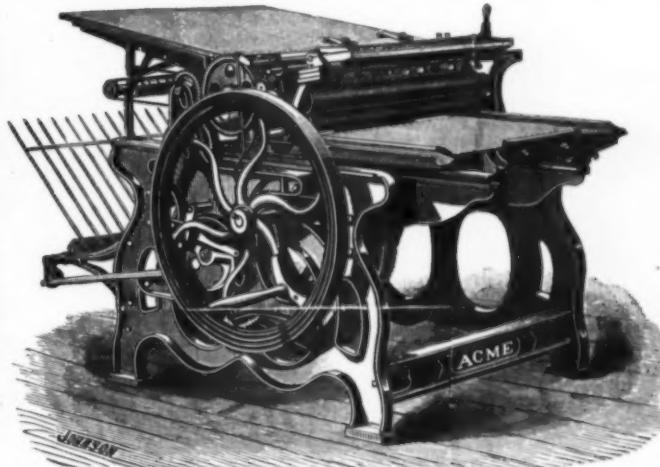


Double Seaming Machines, CIRCULAR SHEARS, Squaring Shears, Canning Machinery, &c.

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SAVE YOUR FUEL!

Warner's Purifier and Heater

[PATENTED JULY 21, 1885.]

The best way to *clean* your steam boilers of incrustation and sedimentary deposit is to *keep out* of the boiler that which causes incrustation and sediment.

The chief ingredients causing sedimentary deposits and incrustation are organic matter, carbonate of lime, sulphate of lime, carbonate of magnesia, sulphate or sulphure of iron, and in salt water common salt.

The WARNER PURIFIER AND HEATER is the only machine which precipitates all impurities held in suspension, heats the water to the boiling point under full boiler pressure, separates and precipitates the mineral salts held in solution before the water reaches the boiler, and then injects the water thus purified into the boiler *boiling hot*. It is an automatic machine, entirely outside of the boiler, requiring absolutely no attention from the engineer except to blow off the accumulation of deposit from the bottom of the machine which acts as a mud-drum. All this is accomplished without the use of chemicals, by a purely mechanical process, regulated by the principles of natural philosophy.

No more "shutting down" of work to clean boilers—the machine does it all every day without interfering with the work, and by removing scale and preventing its formation, and heating the water to the boiling point saves a large percentage of fuel.

The WARNER HEATER AND PURIFIER COMPANY is now ready to furnish these machines on demand at very reasonable figures.

WASHINGTON, D. C., May 23, 1885.

This is to certify that I have made a careful examination of "Warner's Combined Purifier and Heater of Feed Water" in practical operation at the "Harris House" and "Post Building," in this city, and do not hesitate to pronounce it the *best* machine for the purpose ever invented. By its use the water goes into the boiler free from all impurities and heated to the boiling point under full boiler pressure, and as the result of the injection of pure water, the boiler is freed from scale and *kept clean*, while a large saving is made in fuel by the removal of the scale and heating the water to the boiling point *before* it enters the boiler. By the use of this machine the necessity of "shutting down" in order to blow out and clean the boiler is wholly obviated, as the impurities are all collected in the bottom of the machine, which can be blown out as many times a day as the engineer thinks proper without interfering with the workings of the boiler. I confidently commend this machine to all persons who own or use steam boilers, and am satisfied that its use will prolong the life of the boiler and make a handsome saving in the use of fuel. Very respectfully,

(Signed) JOHN H. WILKERSON,
Inspector of Steam Boilers for District of Columbia, 220 7th Street, S. E.

HARRIS HOUSE, COR. PENNSYLVANIA AVENUE AND E STREET, N. W.

WASHINGTON, D. C., June 23, 1885.

This is to certify that one of "Warner's Purifiers and Heaters of Feed Water" has been in use on one of the boilers of the Harris House, in this city, for three months, and has proved a perfect success. The boiler upon which the machine was placed was at the time covered with a heavy scale composed of animal and vegetable matter, lime, &c., which, by the use of this machine, has been entirely removed, the boiler being now as clean as when it came from the boiler-maker. This has been entirely accomplished, without the use of chemicals, by the injection of pure water through the "Purifier and Heater." This machine injects the water into the boiler heated to the boiling point under full boiler pressure, and by this means, together with the removal of the scale, results in a large saving of fuel. It is also invaluable in the purification of the water for laundry purposes. The machine is self-acting, and prevents the necessity of "shutting down" in order to blow out the boiler, as the impurities are all concentrated in the bottom of the machine, and can be blown out through the machine as often during the day as the engineer may deem advisable without interfering with the working of the boiler. I am convinced that its use will prolong the life of all boilers upon which it may be placed, save a large percentage of fuel, decrease the danger of explosion, purify the water for all purposes, and give general satisfaction. I confidently commend it to all hotels using steam and to owners of steam boilers generally as a much needed improvement that will do the work claimed for it thoroughly.

(Signed) JOHN H. HARRIS, Proprietor of Harris House, Washington, D. C.

WASHINGTON "POST" BUILDING, WASHINGTON, D. C., June 23, 1885.

This is to certify that one of "Warner's Purifiers and Heaters of Feed Water" was placed upon the boiler of the Post Building about 60 days ago as a test. At that time the boiler was covered with a heavy scale of animal and vegetable matter, lime, &c., which it was impossible to prevent. By the use of this Purifier and Heater, which injects the water into the boiler free from all impurities and heated to the boiling point, the scale has been removed and the consumption of coal reduced. The machine works itself and is invaluable as a purifier of water to all branches of business requiring pure water, such as hotels, laundries, &c., and a much needed adjunct to all steam boilers, prolonging their life, decreasing the danger of explosion and effecting a large reduction in the consumption of fuel. I confidently commend Warner's Purifier and Heater to all owners of steam boilers, being confident that their interests will be subserved by its use.

(Signed) J. FRANK MCGUIRE, Superintendent and Engineer Post Building.

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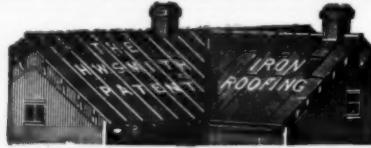
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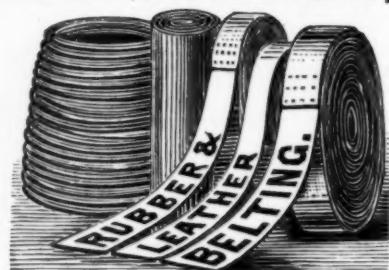
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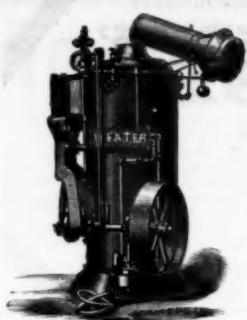
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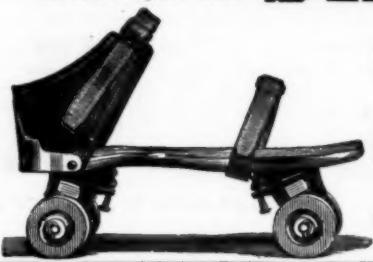
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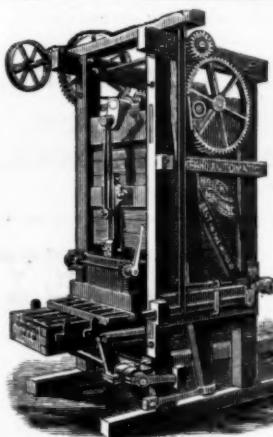
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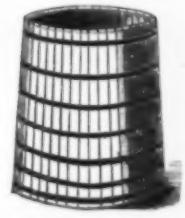
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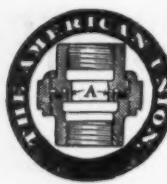
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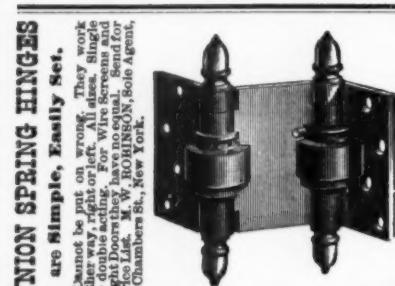
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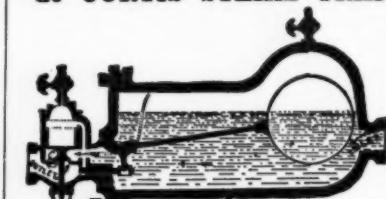
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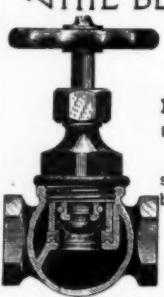
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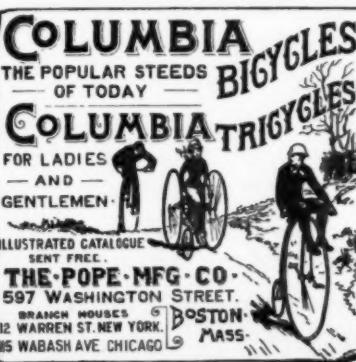
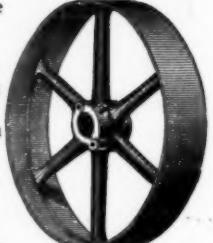
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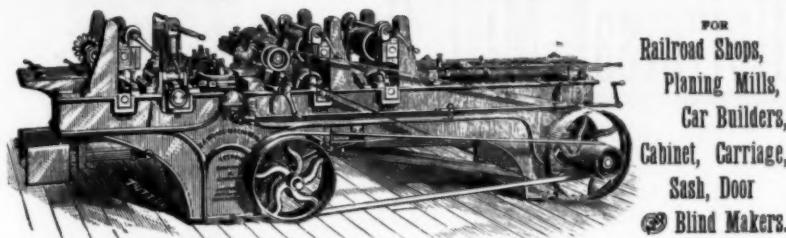
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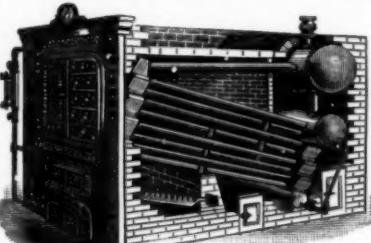
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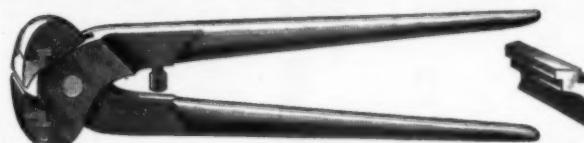
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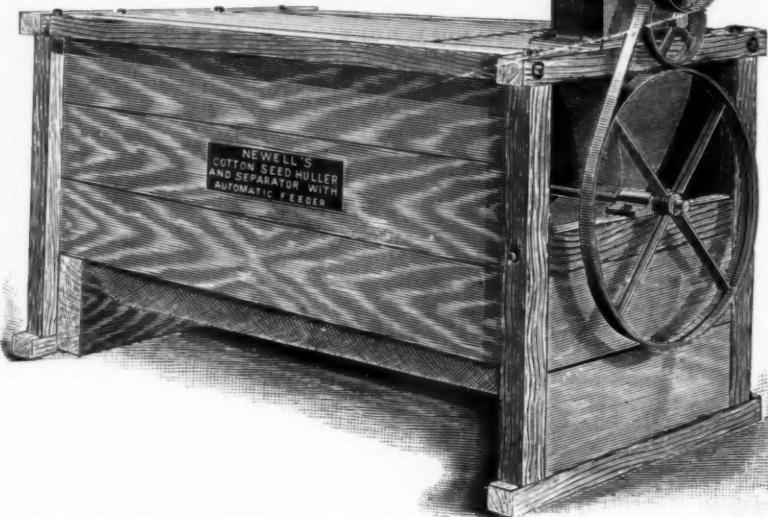
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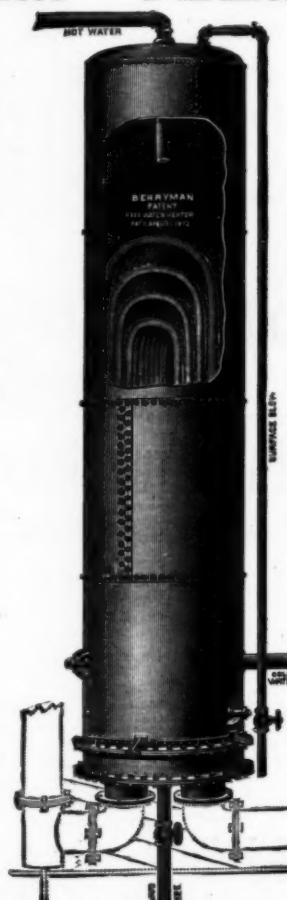
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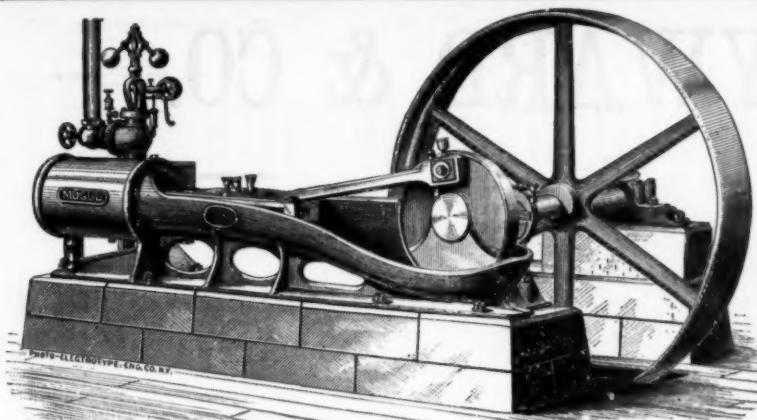
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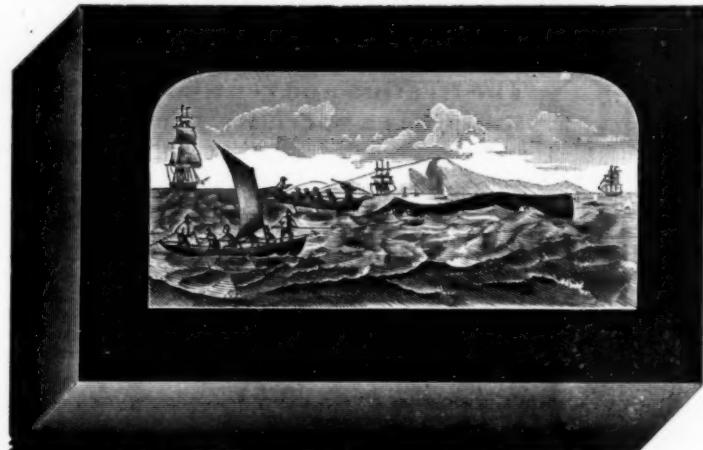
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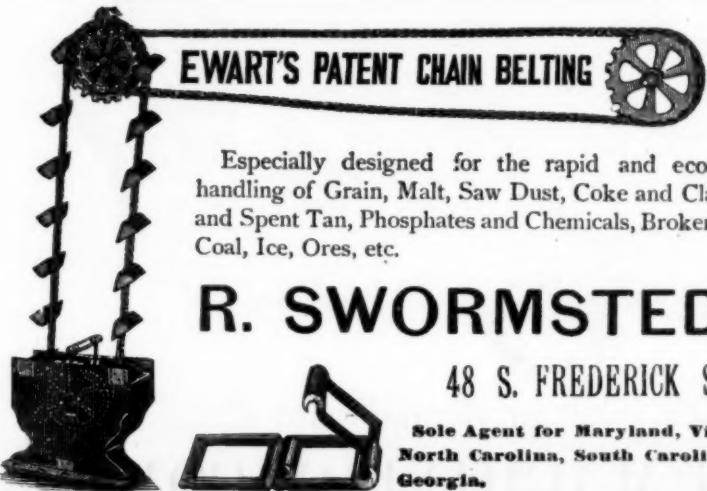
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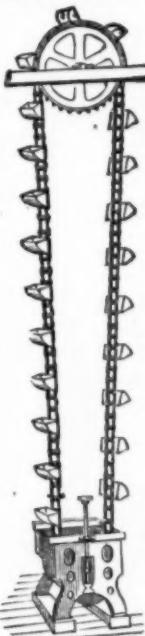
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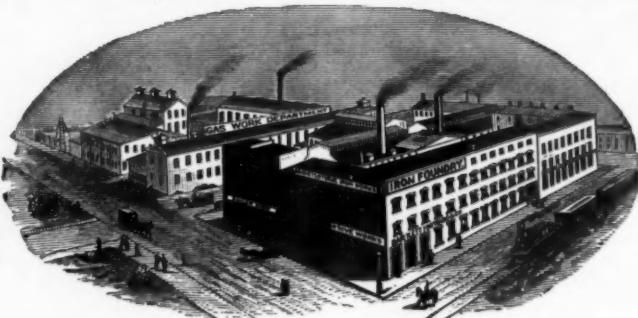
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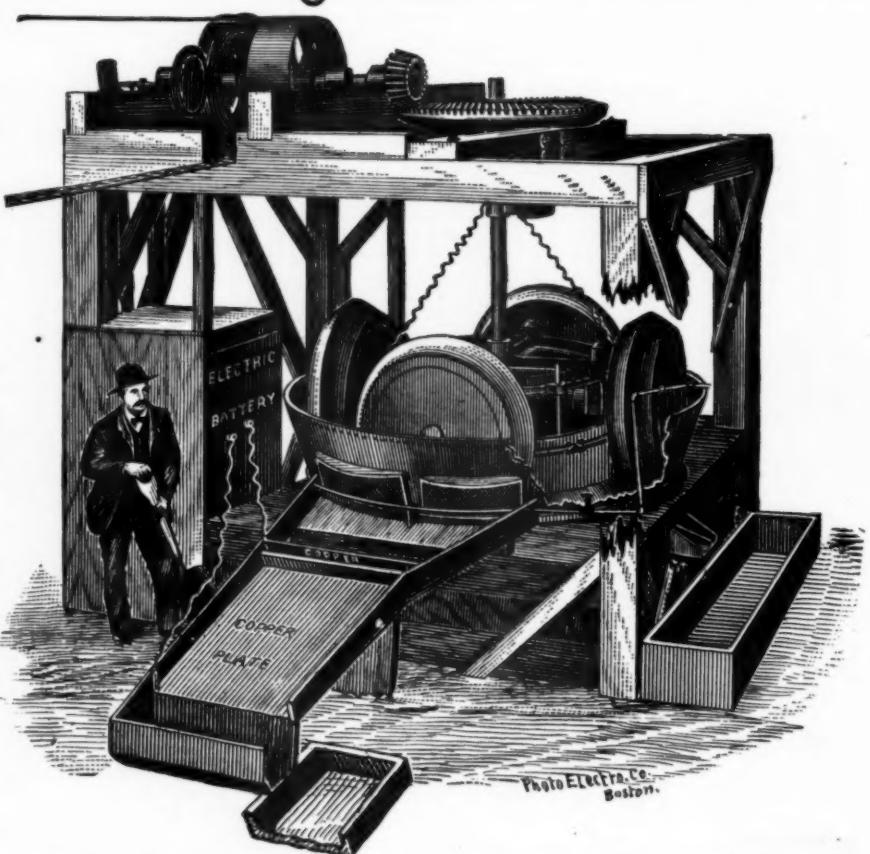
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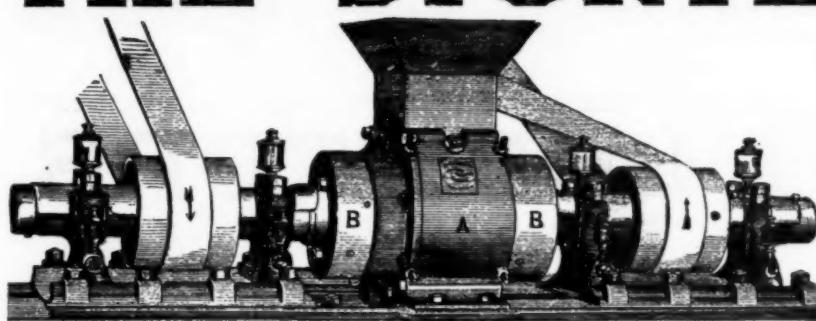
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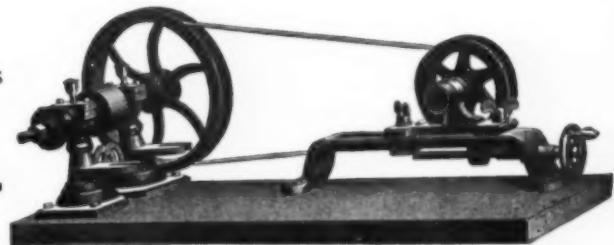
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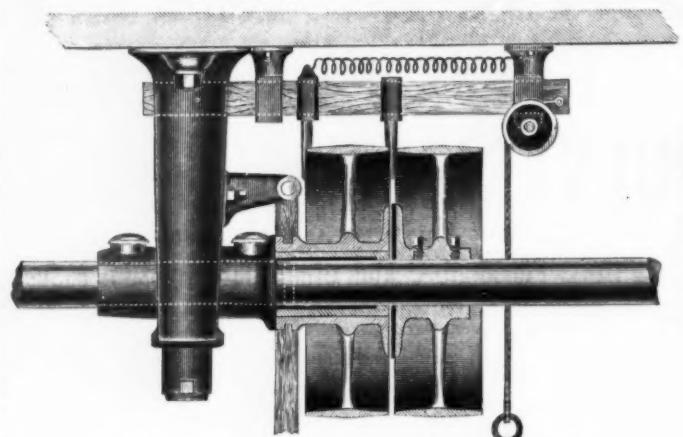
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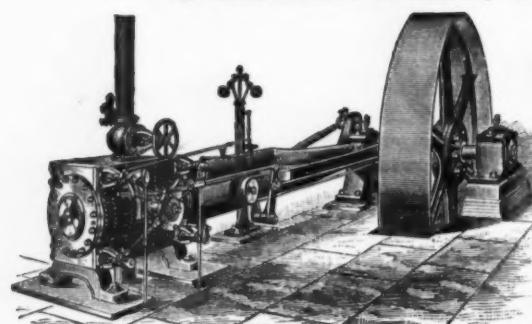
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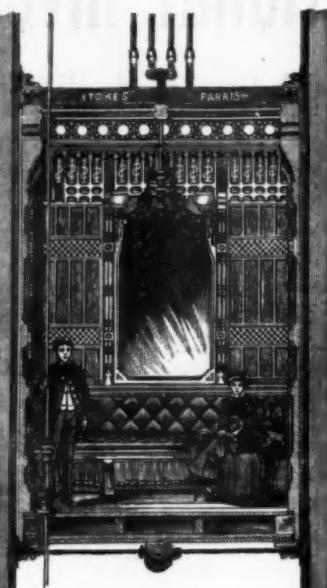
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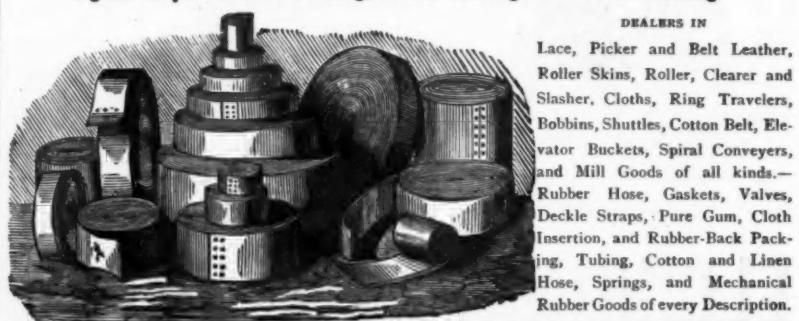
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